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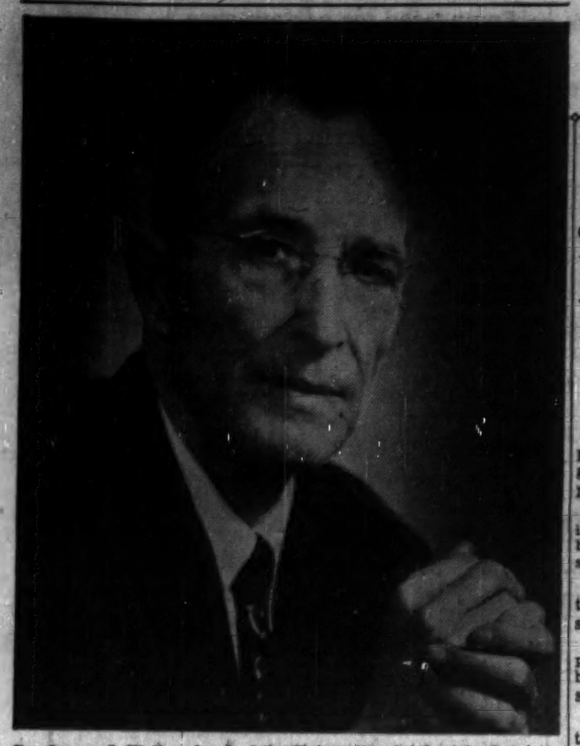
Heads the Chemists



Dr. Osman J. Walker, head of the University of Alberta's chemistry department and director of its school of graduate studies, is the new president of the Chemical Institute of Canada. The 12-year-old ICI's 4,000 senior members — whose aim is to broaden chemical know-how — represent industry, universities, governments across Canada.

(A feature report on Canada's chemicals industry, pp. 49-73)

NATION'S BUSINESS

The New Regime

Power at Ottawa has changed hands. For the first time since 1935 the Conservatives are in office. The Liberals under Louis St. Laurent governed Canada ably and boldly; but 22 years is almost a generation.

No Canadian now under 48 had a vote when the Conservatives last won an election. Only Canadians now over 40 have grown-up memories of the Government that then took charge. It was the unlucky Bennett regime of 1930-35; unlucky because Bennett inherited a severe depression and failed to bring back good times, as he was bound to fail while the rest of the world stayed depressed.

It will take the nation some time to get used to the idea of Conservatives in power federally. Some Canadians may be awaiting, with a mixture of expectancy and misgiving, swift and dramatic changes in national policy.

Such changes don't look probable. For one thing, 1957 is very unlike 1930. Canada is enjoying, even though not uniformly across the land, prosperity and growth; there is no call today for the drastic remedial measures Bennett was expected to supply, and pronto, 27 years ago.

What's more, the two national parties, as the campaign showed, are not far apart, but nearly indistinguishable, in their approach to problems of government. The great argument about Parliament's rights, though certainly a vote-getter for the Conservatives, referred to a passing and incidental state of affairs. It reflected no real difference between parties.

Canada habitually keeps its Prime Ministers a long time on the job if they give good service. Macdonald lasted 19 years; Laurier, 15; Mackenzie King, 21; Borden and St. Laurent, nearly 9 each. On the other hand, some ministries were very shortlived; but these generally happened at the withering tail-end of a long tenure by one party.

Nobody can guess at this point, especially with an uncertain parliamentary situation, what record of performance and tenacity John Diefenbaker will stack up but every Canadian has a very big stake in the degree of courage and wisdom which its new governors will display.

• • •

"Soil Bank" Lays an Egg

As Canadians cast around for a solution to the country's wheat surplus problem, it's to be hoped that no serious consideration will be given to the "soil bank" plan being tried by our next door neighbor.

Results of the first year in wheat have just been announced by Washington and they are even more dismal than the most pessimistic feared. Enormous amounts of money have been paid out, but the U.S. farmer is growing just about as much wheat as ever.

Under the plan, which was designed to cut surplus supplies, American farmers were offered hard cash to take land out of wheat — in other words they were to be paid for crops they did not grow. They withdrew approximately 12 million acres, about one fifth the normal total. For this they will receive $231 million in compensation from the public treasury.

And what about the crop that is being grown?

At last report it may be down 2.7% from a year ago and with favorable weather it may not be down a single bushel.

Why is the possible drop in production so small by comparison with the cut in acreage?

Farmers are not fools. Naturally they took their very poorest land out of wheat and concentrated efforts on their very best. Exactly the same thing would happen here if we were crazy enough to follow the U.S. example.

• • •

Business and the Universities

There was a revolution in the last year in Canadian education, Dr. Claude T. Bissell, president of Ottawa's Carleton University, told the University Counselling and Placement Association in Ottawa last week. Said Dr. Bissell:

> This revolution amounts to a changing conception of the role of the university in society. It took place at a point where the universities intersect with business and government. There are signs now that the three will enter a partnership with the aim of strengthening our national intellectual resources.

What are the responsibilities of business and government in education?

"They must shoulder the burden for making sure the universities have the resources to carry out their task," said Dr. Bissell. He assigned to government the major role in this, because the amounts required are enormous. There's an estimated need of capital expenditure of at least $285 million for new building in the next 10 years. Dr. Bissell added:

> At the same time the business contributions can make the difference between adequate universities and great universities. It is business contributions that could enable universities to branch out confidently into areas that otherwise they would hesitate to enter.

The great need of universities is for unrestricted funds; for funds not tied to the endowment of a particular course, a particular building, a particular endeavor, but available for use as the universities see fit. At present, less than 5% of university income falls into this category.

It's hard to argue with Dr. Bissell's conclusion that business, rather than government, can and should supply the margin over basic costs that is the best assurance of university freedom.

Job Outlook Good Near Summer Peak

Latest Figures Confound the Prophets—Indicate Possible Labor Shortage by August, Buoyancy in This Summer's Economy

OTTAWA (Staff) — Job prospects this summer look amazingly good in the light of May figures released this week.

If employment went on increasing at the April-May rate, we'd be heading into another labor shortage by August.

The May figures are so good that the experts are just a little sceptical.

They point out that these sample surveys may have statistical bugs, and the monthly labor force survey is no exception.

Therefore, they counsel, wait till June figures are in before crowing too loudly.

But, when you've discounted everything you possibly can, the May figures still show a buoyancy which confounds the prophets of gloom.

The startling pick-up (indicated in last week's FP) gets a special welcome because:

- Employment through April was still lagging, apart from normal seasonal movements. It could have meant that the leveling-out of the first quarter still continued.
- The very high level of immigration makes Canada particularly vulnerable to a decline; and the whole future prospect for immigration might be damaged.

March-April employment figures made it look very chancy whether we would be able to employ all our swollen labor force even at summer's peak in August.

And if unemployment in August numbered 150,000-200,000 (as seemed possible) then the winter loomed as quite a nasty problem.

But between April and May the number of people with jobs increased so rapidly that the whole picture changed.

If this increase kept up through the summer, we could even be short of labor by August.

May figures in outline:

Labor force was 217,000 higher than May 1956; largest annual increase recorded, more than last year.

Total with jobs: 188,000 higher than May last year; again largest annual increase.

From March to April the jobs increased 314,000.

This is 56,000 more than last year, and only 11,000 less than the 1955 increase when we were only beginning to pick up slack.

Unemployed: Job-seekers dropped from March-May by 150,000; 1956: 130,000. They were 69,000 higher than May, 1956.

(More details p. 4.)

Prof Shortage Gets Worse Scales Behind '39 Status

OTTAWA (Staff) — Canada faces a serious and growing shortage of university teachers.

This is the conclusion of the Canadian Association of University Teachers which represents 3,000 professors at 25 of Canada's 32 degree-granting universities.

Reason:

- Based on the 1955 Sheffield projection of university enrolments (FP, June 15), 5,245 Ph.D.s will be needed in Canadian university teaching by 1965.
- The universities expect to graduate about 4,800 during the period.
- In the past less than half of **Canadian Ph.D graduates went** into university teaching and there is little reason to suggest that this ratio will increase.

More details, p. 16.)

The 1955 prediction by Dr. E. S. Sheffield of Dominion Bureau of Statistics said university enrolments would double in 10 years; this prediction started administrators on their present high-speed expansion plans.

Recently it has been suggested (by Dr. Sheffield among others) that this may have been too conservative.

Tripled Enrolment

Tripled or quadrupled enrolment is thought possible.

The CAUT was organized in 1951, with increased salaries for professors as one of its objectives. Although most university teachers got 20% pay boosts this year (FP, April 13), they're still some distance from the scale suggested by the CAUT — $6,000, **$8,000, $11,000 and $14,000, for** lecturers, assistant professors, associates and full professors respectively.

The CAUT says adoption of this scale will put the university teacher in the same relative position with respect to other occupations that he was in in 1939.

Inside

World of Chemicals

Chemicals slowdown only a 'breather' before new surge of growth for this $1.1 billion industry ..... pp. 49-73

Your New Market?

In settlements like ice-bordered Frobisher Bay, you'll find future markets. Here's story of the North's boom .. p. 25

Business and Sports

Should business sponsor sports? It improves company morale, publicizes company's name, generates many other benefits ..... p. 30

First French Money Joins Rush into Canada's Mines

By FRANK KAPLAN

Another foreign mining company is entering the race for new mineral resources underway in Canada.

This latest organization is a French company that dates back to 1880—**Le Nickel Societe Anonyme** — which operates nickel mines in New Caledonia, about 700 miles from Australia in the Pacific Ocean.

Appearance of Le Nickel in Canada joins two branches of the Rothschild family—world-known financiers and developers — in a Canadian venture.

Le Nickel, in what is believed to be its first participation in Canadian mining, has taken an interest in a concession in the new nickel-copper area in Ungava.

Le Nickel is joined with **Rio Tinto Mining Co. of Canada** which is managing **Hudson Ungava Nickel Mines** (FP, June 15).

Rio Tinto and Le Nickel control Hudson Ungava through **Brabant Mines** shares.

The initial investment by Le Nickel in Canadian mining exploration totals about $150,000. It is sharing equally with Rio Tinto in ownership of Brabant Mines.

And Brabant is financing Hudson Ungava operations by underwriting one million shares at 25c a share for a total of $250,000.

Hudson Ungava holds its concession in Ungava through a wholly-owned subsidiary—**Sugluk Quebec Mines.** It is participating in an airborne electromagnetic survey of the Ungava area and plans ground exploration this summer.

The French branch of the Rothschild family is said to be interested in Le Nickel. The English branch of the family has a major interest in **Rio Tinto Co.** of London which in turn controls Rio Tinto Canada.

The French company treats nickel matte produced in New Caledonia at its plant at Le Havre, France. In addition it operates hydro-electric plants and has interests in other companies.

Major share interests include 74% of **Societe Caledonienne des Mineral De Fer,** 82% of **Societe Caledonienne Du Chrome,** 17% of **Compagnie Francaise Des Minerais D'Uranium.**

Le Grand Champ Quebec Mining and Exploration, a new Quebec incorporated company, is believed to be representing Le Nickel in Canada.

Building Materials Makers Swing Output from Housing

By CLIFFORD FOWKE

A $3.2 billion industry employing thousands with ramifications far beyond the area of its manufacturing plants is climbing fast **back to the prosperity it knew** eight months ago.

The industry: Building materials of which there are hundreds of different items from aluminum extrusions to asphalt shingles, and which keep mines and major plants busy on supply.

The reason: The construction market in Canada has revived because manufacturers, in many categories, have swung production emphasis on to the industrial, **commercial and institutional** building field which is forging comfortably ahead of record 1956 and more than offsetting the decline in new dwelling units.

The repercussions: Bricklayers and other building tradesmen paid off from new homes work, are finding employment in major structure building, while factories producing warm air furnaces, air conditioning equipment, stoves and certain other appliances are having the sales slack in the new homes field taken up by demands from new offices, schools, plants, stores and warehouses.

Forecasts Section, DBS, which has a 5% to 10% record for accuracy, says in its annual construction prediction that office construction in dollar value of work performed this year will be 4.6% ahead of record 1956, that schools will be 7.9% in front, hospitals 28.6% ahead, hotels, 23.8%, stores 25%, warehouses 17.2% and churches 13.7%. Only setback expected in these categories is factories, a mere 3.4% behind.

It looks as if the effects of this surge in major buildings is already taking place.

Because of the continuing boom in housing in post-war years followed by the sudden collapse in housing which started about a year ago on the order books of the materials manufacturers, the latter in most cases have recently been swinging emphasis on to big building projects.

(More details, p. 28.)

Tory Boss to Alter Oil, Gas Tax Rules

Diefenbaker Says Government Will Follow Gordon Commission Recommendations on Depletion Allowances; No Bars to U.S. Capital

By MICHAEL BARKWAY

OTTAWA (Staff) — U. S. fears that the new Conservative government will discriminate against U. S. investment in Canada were repudiated by Premier-designate Diefenbaker this week in a statement to FP.

"We are not against American investment here," said Mr. Diefenbaker. "But the present position is that Canadians are discriminated against."

He referred to the Gordon Commission's report on taxation of oil and gas companies; and said his government would change the tax laws. The Conservatives had first drawn attention to this situation, he said; and the Gordon Commission had in fact followed their line. The proposed change would bring Canadian depletion allowances in line with U. S. for tax purposes.

Mr. Diefenbaker was not so specific about the Gordon Commission's suggestion for providing tax incentives to U. S. subsidiaries which maintain a stated share of Canadian participation. It appears in line with much Conservative thought, but no policy commitment has been made.

Here are other points on which Mr. Diefenbaker clarified his position for FP:

Tight Money: The Liberal government had been asking Canadians to do "not what I do but what I tell you." First cause of inflation was the high cost of "big government," he claimed.

Economy and Tax Cuts: The new government will appoint a commission to investigate economy in government, on the lines of the U. S. Hoover commission.

"If inflation means too many dollars chasing too few goods, then the cure is to increase the incentive to produce more goods," said Mr. Diefenbaker. "This means reducing taxes."

Government and Business: "Bigness is no offense. The only offense is conduct detrimental to the public welfare. The state's job is only to ensure that everybody big and small, has a fair and reasonable opportunity to compete."

Combines Legislation: The record shows Mr. Diefenbaker advocated that there should be no legal offense unless damage to the public can be proved. He thinks trial should be by a jury, which can judge the public interest, rather than by a judge, who can only follow the letter of the law.

Other points from Mr. Diefenbaker's stand on combines:

—No publication of reports without prosecution.

—Mandatory jail sentences for directors who wink at illegal combinations. "A fine is no deterrent."

Report Sarnia May Get Polymer Butadiene Plant

Plans are believed in final stages for construction of another multi-million dollar petrochemical plant in Canada's Chemical Valley.

Polymer Corp. — Canada's Crown-owned synthetic rubber producer — is now believed looking favorably on Sarnia as the best site for its proposed butadiene plant. The company had purchased extensive acreage at Red Deer, Alta., and had advanced plans to build a $15 million butadiene plant there based on butane raw material available from natural gas fields. The butadiene — one of the two basic materials used in production of synthetic rubber — would have had to be transported to Sarnia.

But the availability of large supplies of butylenes from the new $28 million petrochemical plant of Imperial Oil, now under construction at Sarnia, plus certain difficulties that have arisen in connection with the planned Red Deer operation are believed **to have changed the Polymer** planning on location of the new plant. A new butadiene plant based on butylenes — a further step along the processing cycle — would not be as costly as the Red Deer operation based on butanes.

Immigration Pace Faster Than 1956

OTTAWA (Staff)—Total immigration for the first half of 1957 is still expected to match the whole of 1956. That means about 165,000 people.

But the year-to-year increase is higher, because the pace has been speeding ever since mid-1956.

From the end of June, 1956, to the end of this month, total immigrant arrivals will number about 265,000.

About 150,000 of these are workers. They will swell our labor force by at least three times as much as our own natural increase.

Arrivals by quarters:	
1956 III	40,000
1956 IV	59,000
1957 I	62,500
1957 II	*105,000

*FP estimate.

TCA to Face Competition? Quebecair Bid in Tory Lap

OTTAWA (Staff)—Bustle and boom in Eastern Canada's north this summer will get tailwind assistance from four additional air services.

They will mean (a) cheaper development costs to the mining industry and (b), long-range, if not immediate profitable operation to the expanding airlines.

One additional route application was left unsettled. It was by **Quebecair** for a route along the St. Lawrence River between Montreal, Rimouski and Forestville.

The application was presented on Quebecair's behalf by Liberal Sen. C. G. Power and his son Frank.

ATB's decision on it will now require approval by the new Conservative minister of transport.

Trans-Canada Air Lines is thought to oppose the application and the betting is that ATB will accept the argument — that approval would mean Quebecair could next logically demand and get a competing stop at Quebec City.

This would put the TCA-private carrier fight right into the Conservative government's lap.

Here's the ATB-Marler decision on four routes:

- **Mont Laurier Aviation** will extend north from Fort Chimo through various points to Frobisher Bay. (It also merges (FP, June 15) with **Boreal Airways,** becomes **Nordair.**)
- **Northern Wings** will service middle-north Quebec Province development in the Sept Isles-Barbel Lake-Ross Bay area.
- **Wheeler Air Lines** will base at Val D'Or, fly to Great Whale on Hudson's Bay.
- **TransAir** will operate from Montreal through Hudson's Bay points to Coral Harbor on southern Baffin Island.

Details, p. 28.

Steel May Get Shot-in-Arm If Tariff Changes Approved

By W. L. BLACK

Although Canadian steel and pipe producers were still carefully wading through a 300-page recommendation of the Tariff Board at midweek, several points had already emerged crystal clear.

If the Tariff Board recommendations are implemented by the new government it will mean:

- A shot-in-the-arm to the already fast expanding Canadian steel pipe industry; likely further expansion and diversification moves.
- A big help to structural steel producers; certain further expansion and diversification into new structural fields.
- An aid to many domestic producers of special steel products, e.g. car body parts, spring steel, arising from recommended removal of tariff drawbacks on a number of steel products.
- Much improved competitive position for domestic manufacturers of skelp, the basic steel that goes into pipe for oil and gas pipelines.

(More details, pp 14, 15.)

But it isn't all good news to Canadian producers:

The board recommends generally a downward revision of tariffs on most flat rolled products and bars, with the increased marketing advantage going to both U. S. and British Empire producers.

At this stage of study, though, most steel and pipe people were generally ready to concede that the proposed tariff help went to the products needing it the most.

Among companies standing to gain most are: **Algoma Steel, Page-Hersey Tubes, Welland Tubes** (jointly owned by **Page-Hersey and Steel Co. of Canada**), **Mannesmann Tubes, Alberta-Phoenix Tube & Pipe,** Calgary.

Algoma Steel and Page-Hersey Tubes have been stock market standouts over past couple of months and there is no doubt that anticipated favorable tariff developments have been one of the contributing factors.

Tariff Board's recommendations last weekend have had no visible effect on these two stocks, which are priced slightly below recent peak levels.

The recommendations will be waiting for the new finance minister, but they can't be implemented without new negotiations under the General Agreement on Trade and Tariffs, which should start this fall.

Present rates are bound until the end of the year, and GATT has provided for bargaining before then on any changes.

Further opposition is certain from oil well drillers and the automobile industry, on the grounds (as stated before the board's hearings) that higher tariffs would almost certainly mean increased costs to them.

"We are pretty happy about the tariff changes in pipe," a Page-Hersey Tubes official told FP this week. "They will lead to fuller use of our expanded domestic industry; likely further expansion and diversification moves in the field."

Actually the tariff changes

(Continued on page 8, col. 2)

THE SIGNS AND PORTENTS

NEXT THREE WEEKS will tell the story of this year's wheat crop. No need to wait until September to know how much will be added to the almost two crops already in storage. Timely showers and no blistering heat will mean another big crop.

• • •

CANADIAN EXECUTIVES ARE now being offered pocket-size paging sets that can be made to buzz by radio control. One system has 450 individually-coded sets that can be made to work up to 880 yds. away from a central operator. A second system, with longer range, has 3,235 separate call signals.

• • •

BATTLE IS BREWING over certifying Canada's 45,000 engineering technicians. Association of Professional Engineers of Ontario wants engineers to do the job. It is opposed by such groups as the Chemical Institute of Canada, who say technicians should certify themselves. First blood to APEO: Six APEO certificates have been presented by Premier Frost.

• • •

NEITHER A CAUSE NOR CURE for arthritis has ever been found. Expect some big-headline news on this next week. A European doctor on his way to Canada is going to reveal his idea of the cause.

• • •

TV MAKERS SEEM to be moving by degrees toward the flat, hang-on-the-wall set. Latest offering is the 110 deg. tube, allowing a 21 in. set to be only 15 in. deep. The industry, with sales lagging, will welcome this chance to make other sets look obsolete — and also to hike 1958 prices 5%-15%.

• • •

DISCOUNT HOUSES in Canada may soon start selling food — at cut rates. That's the prediction of Grand Union supermarket chain president L. P. Shield, who plans to counter the threat of discount houses by selling more appliances at discount prices in food stores.

"CANADA MAY NOW be out of action, as a nation capable of vigorous initiatives on the international plane, for several months," is the election comment of a U. K. financial paper. It adds that this may show the free world how much it has come to depend on Canadian diplomacy. "It will be a salutary lesson — but a painful one," is the conclusion.

• • •

ONE OF THE NEXT GIMMICKS of auto advertising is likely to be an exhaust pipe attachment for purifying waste gases. Such a fitment may come first from General Motors. The company is making a close study of air pollution problems.

• • •

YOU'LL BE HEARING a lot more about gibberellin, an antibiotic claimed to stimulate plant growth in science fiction style. It's now being promoted among backyard gardeners, but don't reject the possibility of commercial use on crops. Most leading pharmaceutical companies are taking the matter seriously.

• • •

RAILWAY REDCAPS will no doubt oppose any attempt to bring in the system now being tried on the U. K.'s state-owned railways. Because of the shortage of porters, do-it-yourself luggage trolleys are being made available on station platforms.

• • •

NEW TYPE BEER BOTTLE has been developed in Britain. It is intended to be non-returnable. Its special design allows it to be half the weight, yet strong enough to withstand mechanical filling and handling.

• • •

CANADA IS FIFTH, behind Ireland, New Zealand, Sweden, Australia, in the consumption of dairy products. Meanwhile Canadians are now eating **13.8% more ice cream per person than five years ago, 8.5% more cheese, 8.3% more butter and 3.2% more milk and cream.**

Stock Market Highlights

Industrials

Canadian industrial stocks turn lower, taking their cue from a declining Wall Street list. For details on some of the stocks that moved, see page 5.

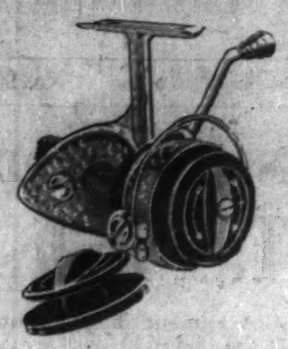
Mines and Oils

Mining and oil issues also show an easier pattern with lower-priced, more speculative issues trading heavily. For details on some of the stocks that moved, see page 47.

Western oil and gas issues which had been strong in recent months encounter some profit-taking. Bailey Selburn is reviewed in the latest of a series of reports on junior oil and gas stocks. See page 46.

Leading base metals flurry briefly higher but quickly slip back to resume previous decline. Copper, lead and zinc issues are lower.

TRULINE Spinning Reel



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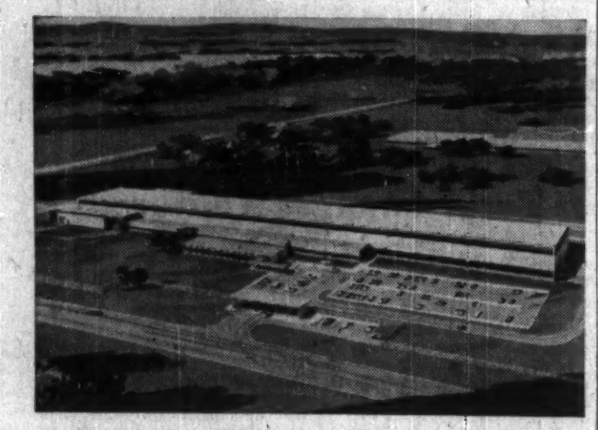
Correspondents the world over



CANADIAN INDUSTRY EXPANDED *by* NEW COPPER TUBE SOURCE

The new $7,000,000 tube mill being built by Calumet & Hecla of Canada Limited will feature complete facilities—the most modern tube-making equipment available. The new company will manufacture and market seamless copper and copper-alloy tube in a wide range of types and sizes—entirely from raw materials produced in Canada. Company policy will be established and directed from the firm's headquarters in London, Ontario and manufacturing and sales organizations will be staffed by Canadian personnel.

Heading the activity will be Mr. D. D. C. McGeachy, vice president and general manager of the new company. Mr. McGeachy also holds the position of president of Canada Vulcanizer and Equipment Company Limited, another C & H subsidiary. He holds a Bachelor of Science degree in Mechanical Engineering from Queen's University in Kingston, Ontario, and is a Councillor of the Engineering Institute of Canada. He was born in Hazelton, B.C.

MR. D. D. C. McGeachy

♦ ♦ ♦ ♦

The company's new plant will be the only Canadian tube mill exclusively devoted to the production of non-ferrous tubing. In addition to supplying the Canadian market this plant will also manufacture tubing for export to world markets. The company's product will be known as Wolverine tubing . . . will be available early in 1958.

CALUMET & HECLA *of* CANADA LIMITED

LONDON, CANADA

Trend of Business

Department store cash registers ringing merrily. Sales for the week ending June 1 chalked up a 2.6% gain over year-before figure. Upward were Quebec (+7.7%), Alberta (+2.7%) and British Columbia (+15.5%). Downward were Atlantic Provinces (—5.9%), Ontario (—2.3%), Manitoba (—3%) and Saskatchewan (—4.1%).

Weatherman aids farmers. By end of May 94% of total grain acreage was estimated to have been sown, compared with 84% a year ago. In contrast to last year, when most of seeding was done in last two weeks, this year farmers were able to avail of good weather during most of month.

Railway loadings still show downward trend. Freight car loadings during the last 10 days of May dropped to 132,142, down 9%. Manufactured iron and steel products were transported in greater volume. Commodities moved in lower volume were grain, coal, non-ferrous ores and concentrates, crude petroleum, gasoline, fuel oil, sand gravel, crushed stone, cement and l.c.l. merchandise. This brings the January-May loadings to 1.6 million cars, down 7%.

Cheese output greater in May. Production of process cheese rose sharply to 3.4 million lbs. (+21%), but January-May output declined to 17.4 million lbs. (—8%). Manufacturers' stocks were markedly higher at 1.9 million lbs. (+29%).

Canned meat stocks — a beefing up. Stocks held by manufacturers and wholesalers at April 30 hit 29.2 million lbs., up 20% from year-earlier. Beef products increased to 16.5 million lbs. (+21.5%), pork products to 9.9 million lbs. (+32.4%), while miscellaneous products dropped to 2.8 million lbs. (—15.9%).

Consumer price indexes show general rise. Indexes were higher in five of 10 regional cities between April and May, unchanged in two and lower in three. Changes ranged from 0.6% increases in St. John's, Nfld. and Toronto, to a 0.3% decline in Halifax.

Cheques cashed in 52 clearing houses in April totaled nearly $18 billion, a 9.7% increase over April last year. All five regions registered increases. Of total, 42 centres were higher and 10 lower. Higher were Toronto (+12%), Montreal (+8%), Vancouver (+16%) while Winnipeg dropped (—16%). Four-month total stands at nearly $67.7 billion (+12.5%).

British Columbia bucks construction fall-off with a 54.1% boost in building permits issued in April to $32.1 million. All other provinces showed declines. National total dropped 6.9% to $176.9 million from previous April.

Retail sales rise 7.9% to over $1.2 billion in April. Saskatchewan led the way (+16.9%), followed by Alberta (+13.6%), British Columbia (+11%), Manitoba (+10.4%), Quebec (+8.5%), Ontario (+4.7%) and Atlantic Provinces (+3.7%). This makes the January-April total nearly $4.4 billion (+8.1%).

Plywood production rises but veneer output falls. April production of plywood rose to 111.1 million ft. (+1.1%), but the January-April figure declined to 403.8 million ft. (—5.8%). Month's output of veneer fell markedly to 53.5 million ft. (—33.9%), cutting the four-month total to 243.9 million ft. (—32.6%).

Paint industry—a bright picture. April sales of paints, varnishes and lacquers rose to $12.7 million (+2.8%), with trade sales climbing to $8.3 million (+3.5%) and industrial to $4.4 million (+1.6%). This makes the January-April total $40.6 million (+3%), of which trade were $25.1 million (+2.4%) and industrial $15.5 million (+3.9%).

A saltier tang in April. Dry common salt shipments jumped 33.2% ahead of previous April to 72,588 tons. This boosted January-April shipments to 352,114 tons, up 25.9%. Month's salt content of brines used and shipped was 41,159 tons, 1.3% higher, making four-month total 167,965 tons, up 0.3%.

Major Weekly Indicators

	Latest Week	Week Ago	Month Ago	Year Ago
Department store sale, % from year earlier	+2.6	+1.9	+4.0	+9.0
Carloading totals (cars)	72,907	81,883	61,262	77,562
Eastern Canada (cars)	47,545	53,193	41,831	50,668
Western Canada (cars)	25,362	28,690	19,431	26,894
Iron and Steel mfg. (cars)	1,617	1,868	1,427	1,338
Ores, concentrates (cars)	6,993	8,367	4,220	8,235
Base metals (cars)	571	788	728	600
Lumber, timber, plywood (cars)	3,770	3,966	3,025	3,928
Cement (cars)	846	1,088	598	1,120
Passenger car production (no.)	6,757	8,505	9,118	9,582
Truck production (no.)	1,347	2,045	1,860	2,607
Bus. fail. 4-week moving av. (no.)	30	28.3	25.2	27.4
Chartered Bank				
Personal Savings ($ millions)	6,179	6,132	6,178	5,876
Loans Outstanding ($ millions)	5,546	5,483	5,567	5,344
NHA mtge. hold'gs ($ millions)	500	510	507	379
Bank of Canada holdings of				
Securities ($ millions)	2,423	2,416	2,395	2,356
Short-term govern. ($ millions)	1,211	1,208	1,179	1,092
Long-term govern. ($ millions)	1,158	1,155	1,167	1,215
Other securities ($ millions)	24	24	21	37
Canadian dollars (U.S. cents, av.)	104.911	104.863	104.650	101.356
T.S.E. industrial index	485.77	487.65	481.11	454.65
Yield, 114 stocks	4.89	4.97	4.98	4.62
Bank clearings				
Montreal ($ millions)	742	991	747	739
Toronto ($ millions)	1,020	1,211	996	834

Facts by the Month

	Latest Month Available	One Month Previous	Two Months Previous	One Year Previous
WHAT WE PRODUCE—				
•In all industries (Index)	283.1	282.2	271.6	283.5
•In factories (Index)	285.7	282.2	269.3	282.5
•Total nondurable goods (Index)	244.6	242.3	237.2	240.9
•Food & bev. (Index)	219.2	208.9	197.9	215.8
Textiles (Index)	209.4	173.2	189.0	203.4
•Clothing (Index)	161.8	160.3	155.2	163.3
•Chemical products (Index)	302.1	299.1	286.6	302.3
•Total durable goods (Index)	350.1	344.4	336.4	347.5
•Iron & steel products (Index)	347.6	337.9	319.6	331.2
•Primary iron & steel (Index)	457.9	445.8	428.0	437.5
•From mines (Index)	260.8	247.2	260.9	257.5
•Metals (Index)	139.7	130.2	129.3	147.6
	276.9	263.7	301.3	261.5
•Gold (Index)	108.1	108.2	108.3	108.3
—From farms				
Cattle delivered (000)	166	138	147	160
Hogs graded (000)	508	425	403	390
Flour (Index)	135.4	133.6	131.3	135.7
—From sea				
•East Coast catch ($000)	2,619	1,958	1,391	2,225
•West Coast catch ($000)	593	860	1,110	521
—From forests				
Newsprint (000 tons)	555	574	519	518
Pulp (000 tons)	824	834	883	901
—In powerhouses				
Electricity (million kwh guaranteed)	7,314	8,109	7,404	6,179
WHAT WE SELL—				
•Retail sales ($ millions)	1,227	1,163	978	1,138
•Dept. store sales ($ millions)	105.2	94.1	76.8	94.9
Wholesale sales ($ millions)	680	561	578	653
Mfrs. outstg. orders ($ millions)	3,159	3,196	3,223	3,046
•Pass. car sales (units)	46,045	38,193	26,529	49,757
WHAT'S ON HAND—				
Mfrs. inventories ($ millions)	4,730	4,654	4,602	4,220
Dept. store stock sale ratio	2.8	4.1	1.9	2.7
SPENDING, SAVING POWER—				
Labor income ($ millions)	1,205	1,197	1,348	1,090
•Dividend payments (Index) (annual rate)	328.4	329.9	326.0	301.5
JOBS—				
Persons with jobs (000)	5,442	5,373	5,382	5,328
Jobless seeking work (000)	304	343	328	287
Do. (% of labor force)	5.3	6.0	5.7	5.1%
CONSTRUCTION—				
•Contract awards ($ millions)	227	228	196	224
FOREIGN TRADE—				
Exports ($ millions)	373	363	347	388
Imports ($ millions)	540	472	434	522
MONEY—				
Money supply ($ millions)	5,813	5,885	5,974	5,791
•Cheques cashed ($ millions)	17,976	15,214	17,773	16,394
Life insurance sales ($ millions)	372	474	357	376
Notice deposits ($ millions)	6,544	6,477	6,451	6,197
Current public loans ($ millions)	5,357	5,304	5,397	4,962
PRICES—				
Consumer price (Index)	121.1	120.9	120.5	118.6

Index based: production wholesale sales 1935-39=100; consumer price index 1949=100; manufacturers' inventories outstanding orders Dec., 1952=100.

STRATEGIC MATERIALS—Production and Supply—

	Latest Month	Month yr. ago	Yr. to date	% chge. yr. to date
Steel ingots and castings (000 tons)	475.1	446.1	1,905.8	+7.3%
Primary copper (000 tons)	30.5	31.7	85.6	—3.4%
Nickel (000 tons)	16.7	15.5	48.4	+6.3%
Lumber exports (millions fbm.)	338.4	303.5	494.1	—19.9%
Lumber (millions fbm.)	371.3	890.1	1,038.9	—16.1%

•New item this week.

Date of issue for your file, The Financial Post, June 22, 1957.

Look For It Here

June 22, 1957

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Dominion Tar Now Controls Howard Smith

MONTREAL (Staff)—**Dominion Tar & Chemical Co.** has acquired majority control of **Howard Smith Paper Mills Ltd.** under its limited offer to acquire additional common shares of the company.

The offering, on the basis of 3½ Dominion Tar common for each common share of Howard Smith, was terminated last week and resulted in Dominion Tar increasing its holdings from 33% of the outstanding common to 53.5%.

Applications in excess of the 354,588 common shares of Howard Smith, to which the offering was limited, have been received by **Montreal Trust Co.** and the books have been closed.

Profits Here?

A regular listing of latest studies by investment firms.

CANADIAN INTERNATIONAL POWER CO. —Royal Securities Corp., 244 St. James St. W., Montreal.

FORD MOTOR CO. OF CANADA—McLeod, Young, Weir & Co., 50 King St. W., Toronto.

SOMERVILLE LTD. — McLeod, Young, Weir & Co.

TRANS-CANADA PIPE LINE—Mackellar, Wisener Ltd., 25 Melinda St., Toronto.

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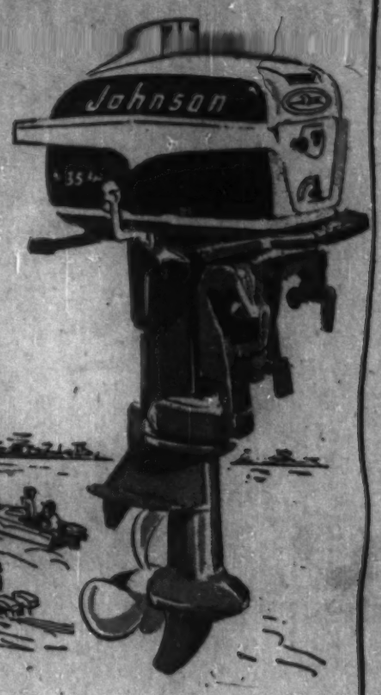

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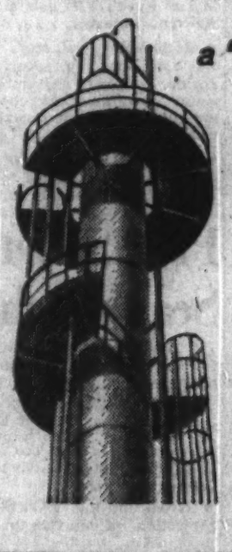

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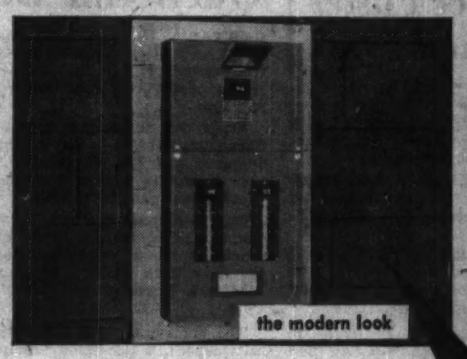

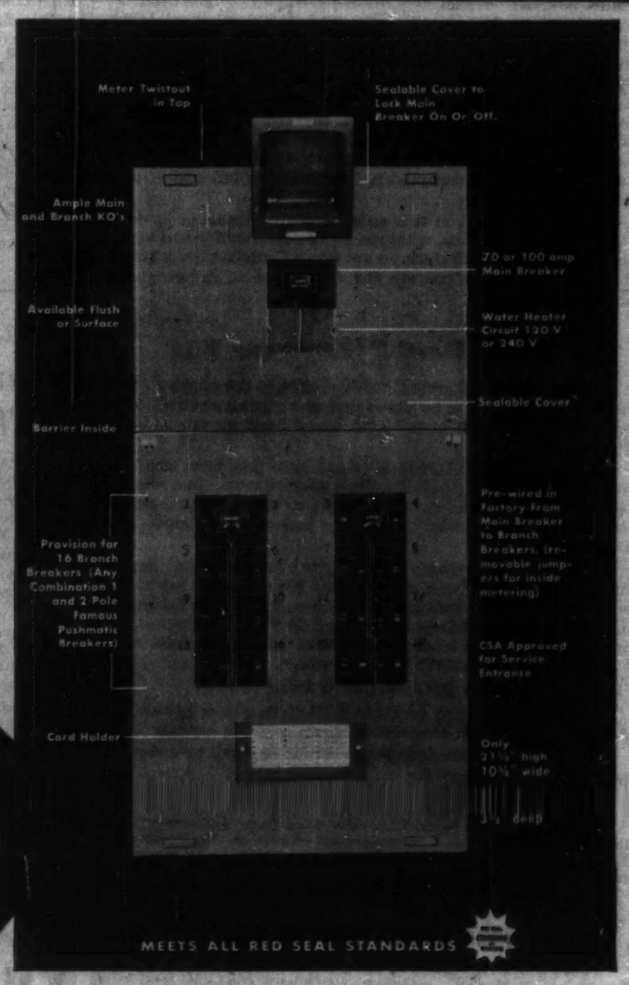

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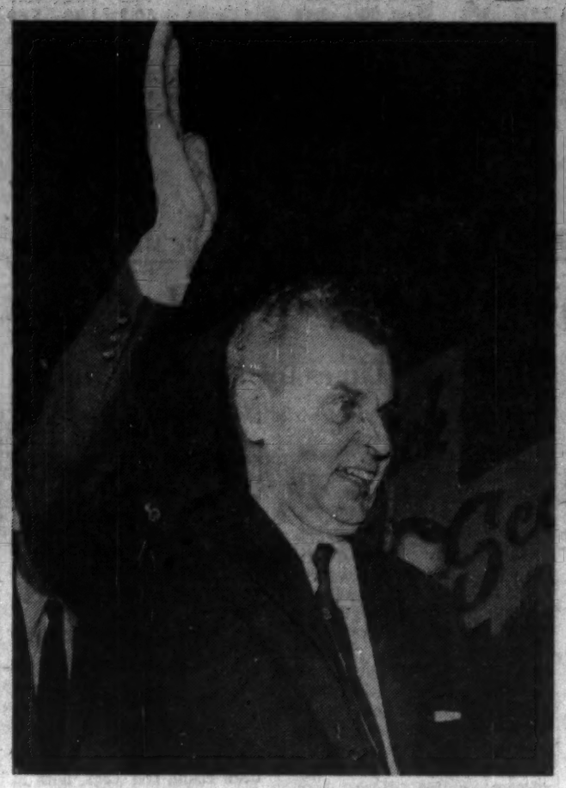
Diefenbaker: A Close up Look at the Man

"Diefenbaker resembles Kipling's cat 'which walked by himself, and all places were alike to him.'"



"Diefenbaker hasn't developed a tough skin, and it's probably too late for him to do so now."

"He thoroughly enjoys a bull session, whether it is devoted to anecdotes or to serious argument on politics or law."

A special report on John Diefenbaker, a lonely star in our political firmament, a politician likened in some respects to Mackenzie King, a man of sensitivity. But how will he govern?

By MICHAEL BARKWAY

The bright new star in Canada's political firmament burns in lonely splendor. A lot of people know a little about John Diefenbaker. Very few indeed know him well. He has always been a solitary operator.

For most of his career he has been somewhat suspect in his own party.

He won the election by backing his own judgment against the majority of the Conservative caucus.

The Conservatives have been swept to the threshold of power by a man they never quite trusted, who won the day by spurning their advice.

George Drew, who used to be accused of arrogance, took far more advice from his supporters than Diefenbaker has done.

Today Diefenbaker calmly comments: "After all, this is the responsibility of leadership." If his campaign hadn't worked, he would have got all the blame.

Winners Win

But political parties are usually happy to be mastered by anyone, who can win elections.

Friend and foe alike know that Diefenbaker won this election almost single-handed; because hardly anyone else believed that the Canadian public cared about the issue he presented: Liberal "arrogance," rights of Parliament, need for a change.

He told FP after the election: "I have never doubted at any time that most people in most parts of the country felt just as I did about the pipeline debate and the Liberals' misuse of power."

There were precious few people to share his confidence before June 10.

Thus he has established the claim to be nearer the grassroots feelings of the country than any other politician of 1957. And it gives him a personal ascendancy such as few prime ministers have when they first take office.

Has He 'It'?

You can't be prime minister without winning elections. But winning elections doesn't necessarily make a good prime minister.

Has Diefenbaker got what it takes to run the country?

Many Liberal ministers say he is a windbag and a hypocrite. They disliked him more than most of their opponents even before he beat them. They say he created a phoney issue, though they frankly admit it caused their defeat. They have long professed to dislike Diefenbaker. But they underrated him so badly that they aren't the best witnesses.

Many of his own party say he's not easy to get along with; and they also find it hard to reach an objective view. But this man's character is now a matter of national and international importance, and it is worth looking at the available clues.

The picture cannot be definitive, because you can never safely judge what a man will do in power from what he did when he was still reaching for it. Being prime minister must be like knowing you are going to be hanged tomorrow morning. As Dr. Johnson said, it sharpens the wits wonderfully.

Executive Powers

Probably Diefenbaker himself hardly knows — certainly no one else does — what executive qualities he has.

He has spent his life between the courts and the House of Commons. The best informants say he can master a brief quickly; that he has a very retentive memory; that he can formulate policy objectives in round and appealing terms. For the platform orator, that is enough. But for the administrator it is only the beginning of trouble. Does Diefenbaker adequately appreciate the problems of administration?

To the FP this week he remarked, in response to a question about further processing of raw materials in Canada: "The objective is clear. The means are of secondary importance."

Can he turn himself into a good administrator? On present performance tidy administration is the last thing you would expect of him. He's never had much need for it before. An orderly office routine and a rigid schedule of appointments aren't likely to come to him easily or naturally. But that doesn't prove he can't achieve them when they become necessary. A stern and efficient "chef de cabinet," or office manager, might solve the problem.

Quick Decision

Has he the power of quick decision? Can he pick men, control a team? Will he delegate administration while overseeing policy?

When you look for answers to these questions, it is tempting to compare Diefenbaker with Mackenzie King. He has always regarded King as a friend. King reciprocated, and regarded Diefenbaker as a natural Liberal who had strayed into the wrong camp.

There are marked similarities as well as clear differences.

It's been objected to Diefenbaker's leadership that he's a difficult man to work with. So was King.

It's established that Diefenbaker has what Blair Fraser mildly described years ago as "a tendency to follow his own judgment." There have been countless cases in the last two Parliaments in which he disagreed with caucus decisions; and either kept quiet or went along out of loyalty. But there were perhaps almost as many cases when he swung the caucus to his view.

Books Burned

For example, in 1948, he was chiefly responsible for blocking an elaborate party campaign to "outlaw communism." A mass of literature had been prepared and printed; the party leaders were ready to let go in a big way; but Diefenbaker talked the caucus out of it, and the literature was burned.

Even earlier, in 1944, it was he, supported by Howard Green, who stopped the Conservatives from opposing family allowances. The leadership had attacked them; George Drew had let forth a blast from Queen's Park. Diefenbaker persuaded the party caucus to support them. His argument might well have been based on the party's long-run interests. Actually it concentrated on his own childhood experience: he knew, he said, what the allowance would have meant to his mother.

In policy matters, at least, Diefenbaker will have no difficulty in following his own judgment. Like King, he will know that he knows best.

Like King, again, Diefenbaker resembles Kipling's "cat which walked by himself, and all places were alike to him." He can say: "Ah, this is a very wise man, but not so wise as I am." He, also, has a disconcerting way of wandering off into the Wet Wild Woods "waving his tall tail and walking by his wild lone."

He is like King, too, in his uncatlike qualities. He is even more sentimental than King was. He is also much more sensitive: Diefenbaker hasn't developed a tough skin, and it's probably too late for him to do so now.

But just as he is very sensitive to slights, so he is exceptionally susceptible to kindnesses. He knows, man for man, who helped him to the leadership and who was against him. He probably exaggerates the importance of individual attitudes in the past. But, on the other side, he is deeply appreciative — almost naively so — of the loyalty given to him by those who didn't support him.

He is capable, as King was, of bitter animosities. But he appears completely incapable of being cold-blooded about people in the King manner. It's a pretty good bet that any opponent could win Diefenbaker's heart by some gentle acts of personal consideration or generosity — not necessarily to him personally.

Two Questions

This raises two questions, in the comparison with King:

—Where Diefenbaker feels animosity toward a colleague, will he be able to subordinate it to political convenience as completely as King did?

—Where he feels affection or obligation, will he be able to wield even the necessary minimum of ruthlessness?

These are vital questions in the running of a Government; and only time can answer them.

According to the immortal British legend, Jimmy Thomas, the trade union leader in Ramsey Macdonald's Cabinet, said to George Lansbury, the saintly pacifist across the Cabinet table:—

"Stow it, George. What we want from you is less of your bleedin' 'eart and more of your bloody 'ead."

In those terms, King was all "head" (and it was pretty bloody at times): Diefenbaker starts out with a more-than-average share of "bleedin' 'eart."

Gospel Lawyer

Those election speeches sounded like a combination of gospel evangelist and old-fashioned jury lawyer. And that is exactly what they were.

Here the difference between Diefenbaker and King is startlingly clear.

The pipeline debate, you'll remember, he called the "culmination" of a long, slow sapping of parliamentary responsibility. He was in fact one of the quietest Opposition members during all the hubbub. He was not among the members who surged out into the aisle and up to the table. At the time he turned to his friend, General Pearkes, and said: "I've never felt like this in my life: I'm choking. But I'm going to stay in my place."

His perennial advocacy of a Canadian bill of rights symbolizes the central burning conviction of his political career. "You can say," he told FP, "that I've got a fetish for freedom: I've always based all my arguments on that."

Cynical Streak

Diefenbaker is again like King in being religious. He is a practising (though tolerant) Baptist: doesn't smoke, very rarely takes a drink. But he has a balancing streak of cynicism, which precludes anything like King's consultations with mediums.

He started life poor, sold newspapers as a boy in Saskatoon, and did odd jobs to pay his way through the University of Saskatchewan. World War I service interrupted his college course; but it was curtailed by ill health. He was invalided back from overseas, and a small scar of disappointment still remains.

After graduating in law from Saskatoon in 1919, he started practice in the obscure village of Wakaw, and prospered unexpectedly well. A few years later he moved into Saskatoon, and went on making money as a lawyer in spite of widely-bruited free services to poor clients; but he got nowhere with his real ambition which was politics.

Many Defeats

He had suffered many defeats and just about given up when he got a surprise nomination in Lake Centre, and was elected to Parliament in 1939.

From 20 years of prairie law practice, Diefenbaker cherishes specially the memory of the cases which he fought — as he sees it — for the cause of the poor man against the powerful.

His memories are fresh and his anecdotes legion. Unlike King, he thoroughly enjoys a bull session, whether it is devoted to anecdotes or to serious argument on politics or law. But it must be conversation: he can't take a rowdy stag-party.

Diefenbaker still lives very simply and remains frugal, his health most carefully tended by his second wife, Olive (formerly Mrs. Palmer).

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Note

By Vincent Egan

Next big change in the Canadian investment field will probably be a campaign to bring bonds to the grass roots market.

The insurance companies and other financial institutions which are the traditional mainstay of the bond market are now heavily committed, with little money to invest in new bond issues.

So, the bond underwriters are making special efforts to interest the individual investor.

For the underwriters, it means heavier expense, since the individual can afford to buy only a fraction of the amount that an institution would take.

For the investor, though, bonds were never more attractive; yields are climbing to historic highs, and most corporate issues have some added attractions in the form of bonus, warrants or conversion feature.

Nevertheless, it won't be an easy job to sell the investor who is persuaded that stocks are his only hedge against inflation, and that more inflation is coming.

• • •

Offering is expected to be made to the public next Tuesday of $5 million **Consumers' Gas Co. of Toronto** 5½% cumulative preferred shares, par $50. Underwriting group is headed by **Dominion Securities** and **A. E. Ames & Co.**

Consumers' plans to issue $5 million first mortgage bonds and $6.8 million common stock in November.

Company earned 82c a share in the year ended Sept. 30, 1956; earnings for the current fiscal year are estimated at $1.24, and for 1957-58 at $1.54.

It is expected that dividend of 80c per common share, paid since 1941, will be increased next year.

• • •

A major French oil company is offering Canadians a chance for equity participation in its Western Canadian operations. Underwriters **W. C. Pitfield & Co.** are handling the issue of $15.8 million 6% participating preferred, par $10, of **French Petroleum Co. of Canada**, a subsidiary of the giant **Cie. Francaise des Petroles**, of Paris. Part of the offering is being placed privately.

• • •

A $6 million issue of Province of Saskatchewan 5% 20-year bonds is being offered by the Dominion Securities group at 98¾ to yield about 5.10%. Price to the province was 97.679.

• • •

The New York borrowing of Metropolitan Toronto consists of $4 million one to 20 year 4¾% serials to yield 4.90%, $2.7 million 10-year 4¾% bonds yielding 4.90%, and $1.8 million 15-year, $24 million 20-year, $109,000 25-year and $5 million 30-year maturities with a 4⅞% coupon priced to yield 5.00%.

• • •

There were some raised eyebrows this week when **Michigan Consolidated Gas**, a utility with a Moody's "A" rating, borrowed on a 6% basis in New York. On Canadian funds, this would represent a yield of about 6½%.

• • •

A Winnipeg building materials firm, **Supercrete Ltd.**, has issued $1,150,000 6% convertible 10-year debentures, sold in the U. S. at par by a Chicago investment firm.

• • •

It will be two years before Canadians have an opportunity to invest in the new **Mannesmann Tube Co.**, which last week held the formal opening of its seamless steel tube mill at Sault Ste. Marie.

President Gerhard Wagner said that when the offering comes, it will consist of stock of the Canadian company's parent, **Mannesmann International Corp.** It, in turn, is wholly owned by **Mannesmann A. G. of Dusseldorf**, Germany.

• • •

Brazilian Traction an... should have about 75c per share available for common stock dividends after deducting interest requirements and administrative expenses, forecasts the **Wiesenberger Investment Report**, New York.

At recent price of $10½, says WIR, stock appears to be adequately priced. "It retains great speculative appeal, however, for investors seeking participation in the growth of Brazil," it adds.

• • •

Rye has strengthened on the Winnipeg market because of unfavorable crop reports and demand for cash rye for Chicago.

Barley clearances have been strong, forward bookings weak.

How Beverage Stocks Are Faring

	Recent Price $	Range, 1957 High $	Range, 1957 Low $	Fiscal Year Ends	Profit per Share Latest Year $	Profit per Share Interim (mos.) $	Price-Earnings Ratio	Indicated Dividend $	Indicated Yield %
Brewers:									
Canadian Breweries ...	26	26¾	23⅛	Oct. 31	3.54	0.57 (3)	7.3	1.50	5.77
John Labatt Ltd.	19	19¾	18	Sept. 30	1.84		10.3	1.20	6.32
Molson's Brewery B ...	25	25½	22	Sept. 30	2.44		10.2	1.40	5.60
Sicks' Breweries	21½	23	20¼	Dec. 31	2.21		15.4	1.40	6.51
Distillers:									
H. Corby Distillery A ..	16½	17	14½	Aug. 31	1.48	0.98 (6)	11.1	1.10	6.67
Distill. Corp.-Seag. Ltd.	29	33	28¼	July 31	2.63■	2.30■ (9)	11.0	1.70	5.86
Hiram Walker-G. & W. .	77½	82⅞	67¼	Aug. 31	7.30■	4.50■ (6)	10.6	3.00	3.87
Vintners:									
T. G. Bright & Co.	17½	19	15½	Mar. 31	2.62		6.7	0.25	1.43
Chateau-Gai Wines ...	16	16	13½	April 30	1.41		11.3	1.00	6.25

■U. S. funds.

SOMETHING COOL?

By ALLAN FENTON

Heat Waves Mean Cold Cash

Hot, Humid Days Are Happy Times for Beverage Makers

This week's heat—or humidity, if you prefer—has made life miserable for millions of Canadians. But for the beverage makers, it's the best thing that's happened all year.

In one of the hottest competitive fields — brewing — a heat wave signals a sharp increase in beer consumption. Sales of liquor and wine also sparkle when the temperature soars.

Despite the solemn assurances of some doctors that alcohol only makes you hotter, Canadians by the millions go on reaching for something cold and alcoholic.

Canada's brewing industry is counting on a 4% sales increase this year, if the hot weather continues and personal incomes remain high.

That's about the rate of year-to-year increase attained last year, when sales reached almost 8.6 million bbls., and it is in keeping with estimates of a 3% to 5% annual increase over the next decade.

The estimate is based on population growth in the beer-drinking age group (21-59).

In the first four months of 1957, beer sales are up 4.5% over January - April 1956. Currently, the brewers are battling for the Ontario-Quebec markets, which account for about 70% of Canadian sales and where three companies — **Canadian Breweries, John Labatt** and **Molson's Brewery** share 90% of the market.

Last ... Quebec sales were up a ...st 6% while the Ontario market showed a slightly smaller increase.

In the January-April period this year, Ontario sales ran about 6% higher than 1956; in Quebec, 1957 sales are only slightly higher than last year's.

Ontario accounted for 42% of Canadian consumption in January-April, Quebec 28%, the Maritimes 4.5%, the Prairies 16.5%, and British Columbia, Yukon and NWT the rest. Per capita consumption rose to 3.61 gals., from 3.52 in the 1956 period.

The industry shows a trend to bottled beer and away from draught, probably because more beer drinking is taking place in the home. Ale still dominates the market, but lager is showing gains.

To reduce costs and increase efficiency of production and distribution, the Canadian brewing industry has spent $110 million on new construction and equipment in the past five years.

But profit margins are still being squeezed, and manufacturers are striving to increase volume. Here's how some leading brewers are faring:

Canadian Breweries Ltd. earned a net profit of about $1 per share in the half year ended April 30, about the same as a year earlier. President G. M. Black expects an increase in both net profit and sales in the fiscal year's second half, bringing full year's sales to $300 million from last year's $225 million.

The U.S. subsidiary, **Carling Brewery Co.** of Cleveland, expects to exceed last year's sales of three million bbls. by about 10%. Company has announced plans for a multi-million dollar plant in Maryland, similar to its brewery near Boston.

Capital expenditures of CBL in Canada and the U.S. are estimated at $20 million in the current fiscal year, of which about $12 million will be spent in the U.S. Last year's total was between $14 million and $15 million.

Dow Brewery, in its first-quarter report, noted that operating results for the current fiscal year should be satisfactory. It stressed, however, that profit margin of the industry as a whole is narrowing.

Molson's Brewery annual report noted that sales for the 1955-56 fiscal year were slightly higher, but that increased costs resulted in lower profits. It will extend its new Toronto plant by adding 24,000 bbls. more refrigerated storage capacity.

Sicks' Breweries reported higher 1956 sales, but higher costs kept net profit at virtually the 1955 level.

The larger brewers appear to have time on their side. The number of small breweries has declined rapidly, eliminating much of the competition. Those that are left behind should benefit significantly from population growth.

U. S. Sales Rising

Canada's liquor industry depends largely on the U.S. market. There, sales have been rising this year, with a modest price increase adding to profit margins.

The outlook is for more price increases in coming years, since U.S. stocks of whisky of bottling age will decline in relation to projected demand.

Canadian distillers should continue to benefit from the growing U.S. consumer preference for imported items, and for straights rather than blends.

Canada's wine industry is not to be compared, in size, with either brewing or distilling.

Nevertheless, it is getting its share—and a little more—of the Canadian consumer's expenditures on beverages. Two of its major companies issued their annual reports this month:

T. G. Bright & Co. boosted its net profit by 35%, from $1.60 to $2.62 per share, in the year ended March 31.

Bright's introduced a crackling white wine last year that has caught on quickly, and sales of premium priced products have risen sharply.

It expects to do even better in the current year.

Chateau-Gai Wines Ltd. earned $1.41 a share in the year ended April 30, compared with $1.31 in previous fiscal year. Public acceptance of a new champagne, introduced just before Christmas, has been "most gratifying."

Prices of many wines, especially of champagne and other premium lines, have been quietly but substantially increased this year.

In Ontario, with no fanfare whatever, wine stores have begun to remain open Friday nights to attract week-end shoppers. Both these factors, combined with the heat wave, augur well for this year's earnings.

One measure of the prosperity of the beverage industries is their contribution to government's tax takes.

For the 1955-56 fiscal year, total government revenues from control and taxation of alcoholic beverages rose 8% to $363,834,000. Total sales of alcoholic beverages were also 8% higher than previous year, at $723,577,000.

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Rockwell Report

by W. F. ROCKWELL, JR.
President
Rockwell Manufacturing Company of Canada, Ltd.

THE ANNUAL MEETING of the Canadian Gas Association this month makes this, we feel, an especially appropriate time to report on two things.

First—as relatively recent manufacturers in Canada of equipment for the gas industry—on our impression of the fine, constructive job being done by the Canadian Gas Association and the gas utilities of which it is composed. The benefits to both industry and consumers of having unlimited supplies of natural gas have already been demonstrated in the western provinces and Ontario. The spreading of these same benefits across more and more of Canada is in capable hands.

And secondly, this seems also an appropriate time to report on our own progress during a little less than two years as manufacturers in Canada of measurement and control equipment for the gas industry. When we began manufacturing at Guelph, Ontario, in 1955, we expressed the desire to grow in Canada *with* Canada.

Since then we have steadily increased the number of products made here—gas meters, regulators, and industrial meters—designed especially for Canadian requirements. We have also steadily increased the number of trained men available to provide the most helpful kind of service to our customers. And that is the way we hope to earn our continued growth here—through providing better products and better service to a growing Canada.

• • •

The new Rockwell No. 210 gas meter accurately measures up to 210 cubic feet of gas per hour, which is ample for the heating, water heating, and cooking needs of most homes. This meter, like the Rockwell service regulator designed for use in conjunction with it, is built especially for the requirements of Canadian gas utilities.

• • •

Since acquiring our Guelph, Ontario, plant we have done extensive modernizing, without interrupting the manufacture of the plant's original products—Beaver Power Tools, conduit fittings, and gray iron castings. Now we also have the facilities to produce meters and regulators, as well as some Delta Power Tools. Recently, a staff writer from a prominent industrial magazine visited this plant to do a series of articles on our production control system. The publication was impressed with the amount of control we have, and also with the multi-purpose special production tools we have developed.

• • •

The greatly increasing production of Canadian oil for export—which is making more natural gas, and more dollars, available—also creates a demand for our Rockwell-Nordstrom lubricated plug valves. In many sizes, these are made in Canada through a licensing arrangement with Peacock Brothers Limited. This Canadian production will be increased as time goes on.

• • •

The Delta Homecraft Power Tools which have been added to the growing list of products manufactured at our Guelph, Ontario, plant include the 8" Tilting Arbor Circular Saw, the 4" Jointer, and the Saw Jointer Combination. While these particular sizes of these basic woodworking tools are primarily for home workshop use, they also have many light industrial applications.

One of a series of informal reports on the operations and growth of the
ROCKWELL MANUFACTURING COMPANY OF CANADA, LTD.
GUELPH, ONTARIO
for its customers, suppliers, employees, stockholders and other friends

Argus Corp. Net Up 25%

Net income of **Argus Corp.**, Toronto, for the six months ended May 31, 1957, was $1,388,050, 25.2% higher than $1,108,565 in the comparable 1955-56 period. Earnings equaled $4.65 per preferred share and 74.5c per common share ($3.70 and 63.5c in the first half of previous year).

Indicated asset value per common share was $34.59 at May 31, compared with $37.89 a year earlier, says President E. P. Taylor.

Income from investments amounted to $1,737,737 ($1,485,186). No changes in company's major investments took place during the six-month period, the president says.

Earned surplus increased by $472,629 to $4,543,125 at May 31.

Investments at May 31 were carried at $53,402,360 after reserve of $549,159. Shares having market value of $74,378,227 were shown at cost of $51,815,253.

Argus' interest in **Canadian Equity & Development** amounted to $1,362,500 ($1,112,500) at May 31, unchanged from Nov. 30, 1956.

Here are the securities held by Argus at May 31, 1956:

	No. of Shares Held	Market Value $
B. C. Forest Products .	400,000	4,700,000
Can. Breweries	400,000	10,400,000
Dominion Stores	385,000	21,175,000
Dom. Tar & Chemical	855,000	8,977,500
Massey-Harris-Ferg. .	1,500,000	10,687,500
St. Lawrence Corp. ..	1,000,000	16,250,000
Other securities	.....	2,188,227
		74,378,227

Job Figures Now Promise Big Year

OTTAWA (Staff) — The great buoyancy of the May employment figures is shown most clearly in a new set of figures adjusted to remove normal seasonal movements.

From February, which is about the winter low point, to May, seasonally adjusted indices show increases in total with jobs for the last three years as follows:

1955: 81,000.

This was the pick-up out of the high unemployment of that winter.

1956: 37,000.

This was considered a very remarkable increase, indicating a very tight market, because we started from such a high level of employment.

1957: 66,000.

If we started from a high level in the 1956 winter, so we did this year.

What significance have these figures for the general business outlook?

1. Being still a month ahead of any production indices, they suggest that the sluggish industrial production index must have jumped ahead in at least one of its major components.

The major part of the employment increase was in non-farm jobs. That means manufacturing, mining, construction or services.

2. They suggest that the capital investment program, which lagged behind the intended program in the first quarter, must have made a real spurt in the second quarter.

And this is a good augury for even higher outdoors construction in the third quarter: Including, many people hope, housing.

Other Indications

3. There are other indications that capital spending plans by business, governments and institutions have been increased between January and June.

The increase won't be as great as it was last year, when the Trade and Commerce Department's mid-year survey showed intentions 6% higher than the year-end survey.

But any increase, following the year's very slow start, indicates a higher level of activity in the second half.

4. In terms of employment, the only gloomy suggestion is that the increase in jobs may be concentrated in construction and other outdoor activities which will have to fold up in the winter.

This, of course, is Canada's perennial problem: It seems impossible to have enough workers in summer without having some too many in winter.

And even if unemployment is higher in the coming winter, the problem will not be nearly so acute if most of the new additions to the work force have been able to put in enough summer work to entitle them to seasonal unemployment benefits.

Here are the key figures in May's labor force survey:

Civilian labor force: 5,881,000.
Persons with jobs: 5,687,000
Without jobs, seeking work: 194,000.
Change from May 1956:
Labor force: plus 217,000
With jobs: plus 188,000
Seeking work: plus 69,000.
Change from March, 1957:
Labor force: plus 165,000
With jobs: plus 314,000
Seeking work: minus 150,000.

And here is a regional breakdown, which shows where the job pick-up occurred between March and May this year (1956 figures in brackets):

Atlantic: plus 44,000 (41,000)
Quebec: plus 79,000 (84,000)
Ontario: plus 78,000 (55,000)
Prairies: plus 85,000 (60,000)
Pacific: plus 28,000 (18,000)
TOTAL: plus 314,000 (258,000)

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Why They're Moving

Facts and comment on what's going on in the market and rumors behind some of the moves.

BY FRANK KAPLAN

Shares of finance companies are attracting investment attention as consumer spending continues at a fast pace in Canada.

Overseas investors who have long been interested in Canadian banks now are also turning to the finance companies.

When tight money policies first became evident, finance firm shares tended downwards in anticipation of cutbacks in their business.

However, early reports indicate no letup in installment buying so far this year. In the first quarter, retail installment contracts were well ahead from the same period last year.

And the vital automobile industry which accounts for a large share of installment buying has been rolling along at a rapid pace in Canada.

Here's how some finance company shares have been trading.

	Latest Price	End April	End 1956	1957 High	1957 Low
	$	$	$	$	$
Industrial Acceptance	31½	28	24	32½	23
Traders Finance A	41¼	39	39¾	42½	38½
Union Acceptance	6¼	5⅛	3.85	6½	3.80
Imperial Investment A	13½	12½	10½	13½	9
Interprovincial Building	12	12	13¾	14	11¾

* * *

THE STREET IS TALKING ABOUT—another round of rumors on **Supertest Petroleum.** The rumors are that a major oil company is acquiring control of this smaller gas and oil distributor. Supertest Ordinary shares climb to $20 from recent $19. The tightly-held common at $5 is ahead from about $4.20. And at a new high for the year. Supertest official says "nothing to it."

Hiram Walkers is a high spot with a sharp jump of $4½ to $78½ from a recent $74. Stock hits a high of $82½ as rumors circulate of a stock split. In contrast is action in the other big liquor firm—**Distillers Seagram**—which slips to $28¾ from a recent $31½. Seagrams reports a 20% drop in profits in the first nine months of its year.

* * *

And elsewhere in the beverage industry, **Canadian Breweries** reported a rise in sales of 10% in the second quarter of its fiscal year but net profit was down slightly. Record sales of more than $300 million are expected for the full year which ends Oct. 31. The stock at $26 compares with a recent $25¼ level.

Annual report of **Dominion Textile** for the year ended March 31 sparks brief flip in the stock to a new high at $9 from a recent $8. Company reports a net of $1.18 a share, up from 86c. **Canadian Celanese** is also brighter at $16 up from $14.

Consumers' Gas features briefly for a jump to a new high at $40¾ before settling to $40, ahead from a recent $37 level. The stock has been a favorite among investors as a result of interest in gas.

* * *

Pipeline stocks tend weaker as investors appear to lose interest following previous strong buying. **Trans Mountain Oil Pipe Line** continues easier following a recent slide as a result of a drop in offshore tanker shipments. At $116½ the stock is down from a recent $125½. Late in May it was trading around $138.

Here's how other pipelines are making out. **Interprovincial** at $56¾ compares with $59½; **Pembina** at $13¾ compares with $16; and **Trans Prairie** at $26½ is down from $30.

In the major oils, **McColl-Frontenac** bounces ahead to $81 from a recent $77 while **Imperial Oil** ends easier at $58¼, compared with $60.

* * *

OTHER MARKETS—Over-the-counter trade slows to a crawl with interest only apparent in pipelines. **Trans-Canada Pipe Lines** units at $156-$158 area ahead about $2 and the common at $44¾-$45¼ is up a fraction.

Westcoast Transmission units climb to $233-$236 from $227-$232 range and the common at $51½-$52 holds steady. **Northern Ontario Natural Gas** units settle back from their post-offering high of $45 to $38½-$40½ and the common loses about $1½ at $25-$25¾.

Quebec Natural Gas units climb to $199-$202 from about $183 in two weeks of quiet dealings and the common adds $2½ at $33½-$34. **Alberta Gas Trunk Line** common slips fractionally to $19½-$20.

Suit Against Webb & Knapp

MONTREAL (Staff)—A "middle-man" this week sued the U. S. real estate investment company, **Webb & Knapp Inc.** for $700,000.

Plaintiff is T. J. Vandor, president of **Vandor Real Estate Ltd.** of Montreal.

Vandor claims that over four years from 1953, he had carried out negotiations with **Canadian Petrofina Ltd.** on behalf of Webb & Knapp to purchase and lease back a number of filling and bulk stations.

According to Vandor things moved slowly in 1953 and 1954, picked up in 1955 and in 1956 Petrofina was ready to talk terms.

The U. S. company's subsidiary, **Webb & Knapp (Canada) Ltd.** in fact bought the stations, Vandor claims, for $29 million. Webb & Knapp say the price was about half that.

Vandor replied that the total lease amount and purchase was $29 million and that he was entitled to commission on that figure.

It is Vandor's claim that at the closing stages of the deal the two companies acte directly and left him out in the cold.

This week Webb & Knapp were preparing their answer. Officially their position was: No comment.

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"	Growth Fund	2.18	2.20
"	American Fund	6.43	6.49
(1955)	Executive Fund	36.27	..
(1956)	Executive Fund	29.77	..
(1957)	Executive Fund	5.08	5.33

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U.K. Stocks

(Supplied by Ronald D. Smith & Co., Toronto.)

Here are representative issues traded in Canada (quotations are in Canadian dollars):

	Bid	Ask
	$	$
Bowater Paper	5	5⅛
British Aluminium	8¼	8⅝
British Petroleum	20⅝	21⅛
Courtaulds	4⅛	4¼
Daily Mirror	1.05	1.20
Ford of England	4⅝	4⅞
Hawker Siddeley	4¾	5⅛
Hudson's Bay Co.	30¼	31¼
Imperial Chemical	5.20	5.40
Stewarts & Lloyds	3½	3¾

Award Two-Year Scholarships

Two electrical engineering graduates of University of Toronto, M. A. Laughton, and T. S. Morrison, have been granted two-year scholarships in England by **Amalgamated Electric Corp.,** Toronto. Training facilities of the parent company, **General Electric,** of England, will be made available.

Amalgamated will make two similar awards annually.

Here are clues to profit

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June 11th, 1957

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NOTICE is hereby given that Sogemines Limited (herein referred to as "Sogemines") proposes, subject to compliance with the necessary legal formalities, to offer (a) to the holders of the 6% non-cumulative participating preferred shares (herein referred to as the "preferred shares") of the par value of $10 each of Sogemines the right to subscribe for additional preferred shares of Sogemines at the price of $15 (Canadian funds) per share, on the basis of 1 such additional preferred share for every 4 preferred shares held, and (b) to the holders of the ordinary shares (herein referred to as the "ordinary shares") of the par value of $1 each of Sogemines the right to subscribe for additional ordinary shares of Sogemines at the price of $1.50 (Canadian funds) per share, on the basis of 1 such additional ordinary share for every 4 ordinary shares held. No fractions of shares will be issued.

Only the registered holders of preferred shares and ordinary shares of record at the close of business in Montreal on June 17, 1957, (herein referred to as the "record date") and the bearers for the time being of those bearer share warrants for preferred shares of Sogemines outstanding at the close of business on the record date will be entitled to such subscription rights.

The subscription rights will be transferable and will be exercisable during a period commencing not earlier than July 1, 1957.

Appropriate warrants evidencing such subscription rights will be mailed to registered shareholders of Sogemines as soon as the necessary legal formalities can be complied with. The conditions and manner of the exercise of the subscription rights will be indicated on such warrants.

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Nothing contained herein shall constitute or be deemed to constitute an offering for sale or a solicitation to subscribe for any shares of Sogemines.

SOGEMINES LIMITED
Per: F. C. Cope,
Secretary.

A Londoner's Financial Notebook

News and views on the British securities markets, specially written for **FP** *by one of London's distinguished financial writers.*

The defeat of the Liberals in Canada's election surprised the City and unsettled the London market in Canadian securities.

For the moment, British investors are adopting a rather more cautious attitude to Canadian stocks, though buyers have still been around for such favorites as **International Nickel** and **Pacific Petroleums.**

It seems unlikely that the confidence felt by an increasing number of investors here in Canada's long-term economic expansion will be much shaken by present political factors.

Apart from a rally in gold shares and further activity in oils, stock markets have been quiet and irregular with Government bonds drifting to lower levels on lack of support.

Although most British industrialists are still worried by rising costs, business activity is generally well maintained and retail trade has been showing a 7% advance on last year.

Bank loans have also been rising. Total advances made in Britain in the three months to mid-May rose by £78 million to £2,078 million, the highest level since the record figure established at mid-August, 1955, when the "credit squeeze" began to tighten.

* * *

Sales of **Imperial Chemical Industries** showed a further increase last year, but rising costs bit into profit margins and net earnings were lower.

In his speech at the annual stockholders' meeting, Chairman Sir Alexander Fleck stated that turnover this year had again increased and 1957 promised to be a period of satisfactory progress. The demand for "Terylene" fibre was particularly strong.

Company has a mammoth development program ahead of it, and Sir Alexander disclosed that it will take more than £100 million ($266 million) to complete capital projects already sanctioned.

In the current year, expenditure in Britain alone is estimated at £50 million and the overseas companies also have projects to complete.

Expansion plans in Canada include the building of a second sulphuric acid plant at Copper Cliff to service the Ontario uranium mines and the development of a site at Seven Islands, 350 miles north-east of Quebec City, for the manufacture of explosives.

Sir Alexander told the ICI meeting that a continued high level of capital investment was inevitable if the group was to maintain its position.

But he promised to maintain a fair balance between profit retentions and dividends.

ICI's one-year price freeze on products sold in the U.K. ends July 1. In future, the company will treat each product on its merits and adjust prices up or down, as demanded by cost and market conditions.

General policy will be to keep prices stable for as long as possible.

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ANNOUNCEMENT

STERLING TRUSTS

ELTON R. MEREDITH NEILS F. PETERSEN

Mr. Roy T. Birks, Q.C., President of The Sterling Trusts Corporation announces the appointment of Elton R. Meredith as Managing Director and Neils F. Petersen as Secretary of the Corporation.

Mr. Meredith is a graduate of The University of Toronto in Commerce and Finance and a member of the Ontario Bar. He has been associated with the Corporation for some thirty years, latterly as Secretary and officer in charge of estates administration.

Mr. Petersen has been with the Corporation since 1948, specializing in real estate appraisal problems and investments. He is a director of several other companies, a member of the Board of Governors of the Toronto Y.M.C.A. and Treasurer of the Central Branch of that organization.

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LABOR ROUNDUP

By STANLEY MALINOSKI

The CLC: Big Political Power?

"Autonomy" Makes Voting Solidarity Improbable

What's ahead for the mighty million-member Canadian Labor Congress:

Political power?

Monopoly of labor?

Organizer of unorganized labor?

Opinion of one of Canada's top labor authorities, Eugene Forsey, CLC research director, is that:

"It will be a very long time before unions in most crafts or industries in Canada will be in position to dictate the price of their members' services."

Main reason: The "completely autonomous" composition and nature of the CLC. Its powers are "limited . . . for good or ill."

Forsey is regarded as the "academic brain" of the Canadian labor movement. He spoke last week to the Learned Societies Conference in Ottawa. His frank appraisal of labor's "exciting evolution" closed with this warning:

"If any employer thinks I have assured him the CLC really means nothing and can do nothing, he is in for some rude shocks."

It has been 14 months since the Canadian Congress of Labor and the Trades and Labor Congress of Canada formally joined hands to become the largest secular organization in Canada.

If and when the Canadian Catholic Confederation of Labor enters the fold, CLC membership will jump to 1,150,000, representing seven-eights of Canadian trade unionism.

What have been the significant implications of the merger?

Only Guesswork

Only one is clear, said Forsey — the complete autonomy of the CLC. Others are only guesswork.

The overwhelming majority of Canadian unionists belong to international unions with headquarters in the U. S.

"That is how it has been, and will be as far ahead as I can see."

But the CLC runs its own affairs and often — notably political action and foreign policy — follows a completely different line from the AFL-CIO.

In the political field Forsey said it's doubtful where the CLC will end up.

Reasons:

- CLC has no power to "order" anyone to do anything: Strike, vote or anything else.
- All the CLC can do is encourage, advise and warn. As yet it has no clear, definite advice to offer.
- CLC's "dextrous compromise policy" leaves political action up to the individual unions, Provincial Federations and local councils.

If the Congress ultimately decides on a definite line of political action, there's no assurance the union members will fall in line accordingly.

"Ethnic, sectional, sectarian or family loyalties might prove far more powerful than economic interests, real or imputed."

As for financial backing of a political party, the CLC has no "colossal" funds. Its money goes to finance activities of a considerable, far-flung staff.

"And getting an increase in per capita dues (presently seven cents per member per month) from the unions is like pulling teeth."

CLC's chief political effect will enable labor to mobilize and present its case more effectively.

"Governments will presumably pay more attention," said Forsey.

Labor's most important challenge:

Bringing into the trade union family some two million unorganized workers. The problem: Few organizers, limited funds. Affiliated unions will have to do most of the work.

* * *

Labor Briefs

After its swing across Canada (**FP**, June 8), the Kellock Royal Commission plans to observe rail operations in France, Switzerland, the Netherlands and Britain during August.

Reason: Both **CPR** and Brotherhood of Locomotive Firemen and Enginemen have submitted considerable evidence concerning railway operations in these countries.

* * *

Ranks of Canadian dairy farmers have dwindled in the last five years to 398,000 from 455,000, despite a two million increase in the nation's population, reports the Dairy Farmers of Canada.

Per capita consumption of dairy products has increased 11 lb. to 1,044.6 lb. Other statistics: It's estimated that one out of six Canadians derives all or part of his livelihood from dairying; the housewife spends 15½c of her food dollar for dairy products.

* * *

Notable quote by W. A. Campbell, Hamilton, Canadian Employer Delegate to the 40th International Labor Conference in Geneva, Switzerland, on "Role of Government in Labor-Management Relations":

"Good industrial relations cannot be created by legislation. Employers and employees should be left the maximum freedom to work out their common problems without government legislation."

* * *

Annual profit-sharing bonuses totalling $77,766 have been received by 520 employees of **Drug Trading Co.,** Toronto. Individual shares ranged from $35 to $227.50, depending on length of service. This is the 39th year of the plan's operation.

* * *

Ontario credit unions helped to loosen the "tight" money situation with $80 million in loans to members during 1956. The province's 1,450 unions have 450,000 members, assets of $115 million. Canada as a whole: 4,275 credit unions, 1,992,000 members, assets of $791 million.

New Machines In Operation

First of two new newsprint machines at **Great Lakes Paper Co.,** Fort William, went into operation this week.

Start-up was on schedule and 13 months from the time construction began, company reports.

This is the third machine operated by the company and increases installed newsprint capacity by 57%, according to company officials.

Construction of number four machine is reported to be proceeding on schedule. It is expected to be in operation early in 1958 (**FP**, May 4).

In the case of both new machines, capacity rate of 90,000 tons a year will not be reached until 12 months after each machine has gone into operation.

The Disney Executive

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An Excellent Example

It's good economics to keep a watchful eye on the rate of foreign investment in Canada but neither helpful nor worthwhile to make a dog-in-the-manger approach.

In an Ontario village last week, an opening ceremony at a major new plant underlined a national object lesson provided by the cement industry. It showed the importance of a wise combination of foreign and home funds in maintaining rapid economic development.

The St. Lawrence Cement Co.'s new plant at Clarkson is the ninth such project built or building by home and foreign-based companies since 1955. The more than 40% increase in cement production facilities in that time has made Canada nearly self-sufficient in a commodity essential for one of our biggest industries. This may well be the first post-war year when construction, which represents a fifth of our gross national product and is scheduled for its highest dollar volume, may be free of its perennial peak-season headache of tight cement supplies.

But a significant aspect is that, while foreign money launched at least five of the projects, Canadian participation through stocks and debentures in the $130-million expenditure involved has been substantial. That old Canadian giant, Canada Cement Co. has been in the forefront of the race to meet expanding needs. Investment from France, Switzerland, the U.S., Belgium and the U.K. has also played a part.

E. P. Taylor, one of Canada's biggest and most versatile industrialists, spoke much to the point at Clarkson when he emphasized that Canada's rapid growth could not possibly be financed entirely from domestic sources of capital. All great countries, he said, have been built up in large measure by foreign capital of the right kind.

He could have made another point. The example of foreign entrepreneurs in giving Canadians an opportunity to share financially in the cement projects could be copied with advantage in other production fields.

A Demanding Role

Perhaps it's symbolic that the last important official act of the St. Laurent Government was to approve pay raises for the civil service, and almost the first post-election statement from John Diefenbaker was approval of those raises. If ever Canada depended on the tradition of a permanent civil service, we depend on it now.

This is merely a reflection of the immense complexity of a modern state. The "new boys" will have to rely heavily on the advice of deputy ministers until they have had a chance to get to grips with their jobs.

What's more, in the current unstable political situation, the Prime Minister and his colleagues may have to devote as much thought to managing Parliament as to administering the country's affairs; and with an election perhaps no more than a year away, the MPs (including ministers) will have to keep in touch with what's going on back home.

Regardless of what happens in parliament or on the hustings, the work of the country must go on. New policies must be integrated smoothly with what has gone before. Canada's senior civil servants are now in a very demanding role.

They Were Optimists

Walter Gordon and his colleagues are pikers measured against the unknown editor of the first Canada Year Book.

After much digging and travelling Mr. Gordon and his fellow commissioners in their recent economic study of Canada, predict a Canadian population of 26,650,000 by 1980.

Now listen to this from the Canada Year Book of 1868, just one year after Confederation:

> "We may, with some pretension to probability, assume that the rate of progress of the population of all British America will be as rapid for fifty years or more as it has been for the past decade, and this would give as the population . . . in 1951, 58,361,000."

Actually by 1951, as the Royal Bank reports in its current letter, "we fell short of that figure by 44,351,571."

Apparently the year book editor failed to realize just how long it took a settler to chop a farm out of the bush or build a city with the primitive equipment then available. Like the other Canadian pioneers, however, he was an optimist and a good thing too, for the generations that followed. In population we may not have grown quite so fast as anticipated but, as the bank letter adds, "large segments of our economy have made advances that would have more than satisfied those who ushered in Confederation so hopefully," just 90 years ago next week.

Persons and Papers

It will be interesting to see what happens, in the new Parliament, to a controversy that raged last session. Will Parliamentary committees be allowed to "send for persons and papers"—that is, to call on civil servants for direct testimony on government policies, and for production of relevant documents?

In the last Parliament, both Conservative and CCF spokesmen demanded that this permission should be given. Walter Harris, as House leader for the Liberals, resisted. He argued that each minister, as the departmental official responsible to Parliament, was available for questioning, and that civil servants should not be in the position of having to give evidence under oath regarding policies they were required by Ministers to put into effect.

Opposition MPs replied that this was a specious argument, concealing reluctance to let them have information needed for effective criticism. They cited British precedents for giving Parliamentary committees the authority they sought.

Now, what will happen? It is hard to see how Conservatives could oppose enlarging the scope of committees after all they said in the last House about the rights of Parliament. It's also hard to see how the Liberals could seek power to send for persons and papers after what they said about independence of the civil service. The upshot will be interesting.

Investment Can Do It

Pointing to the fact that India is in economic trouble despite $1 billion in American aid in the last ten years, Barron's Weekly says:

> The fact is, as a decade of recent history shows, that one country, no matter how rich or benevolent, cannot bestow economic progress on another.

Nonsense. Who developed the jute, tea and engineering industries in India, the sugar industry in the Philippines, the rubber industry in Indonesia, the oil industry in Burma, the iron industry in Algeria, the rubber industry in the Congo?

Were not these jobs done, respectively, by the British, the Americans, the Dutch, the British again, the French and the Belgians? Certainly they were; and the indigenous inhabitants are much better off as a result.

It's true that the Indian Government, through inexperience or economic dreaming, has made economic mistakes. But if the observer confines his gaze to the 10 years of Indian independence and the $1 billion in U.S. aid since 1947 (an amount, by the way, equal to only about 0.5% of Indian national income for the period, according to U.N. figures), wrong conclusions will certainly be reached.

It is flying in the face of experience to say categorically that a rich, advanced country cannot help a poor and backward one along the road to prosperity. True, it can't be done by relief of the starving with gifts of food; this is pure humanitarianism. It can be done by long-term investment on a business basis, as it was done in India, the Philippines and elsewhere.

Maybe some of the newly enfranchised countries are not stable enough to interest people with spare capital. Even if all of them were politically sound, there could be difficulty in coming to terms with Nehru, Soekarno, U Nu, Nkruma (in the new state of Ghana) and other leaders or their finance ministers. But these are problems to be studied and tackled, not dismissed with a defeatist shrug. If it can't be done, we must find a way to do it or the Russians will.

Cause and Effect

There was at least one die-hard Liberal surviving in western Canada after the vote. Meeting him on a Winnipeg avenue, a friend (knowing the subject would be painful) decided not to mention the election. Instead, he remarked on the weather, which was dull and rainy.

"Terrible weather, isn't it?" he said, tactfully.

"What else can you expect," snapped the Liberal, "—with a Conservative government?"

Washington Tariff Antics

Increasing exports are credited by Whaley-Eaton with a major role in sustaining the United States economy in recent months. Notwithstanding a whopping gain of 18% in 1956 they are running 25% higher so far this year. U.S. imports on the other hand only chalked up a gain of 10% last year and so far in 1957 they are just holding that level.

Under the circumstances one might suppose that everyone would be pretty satisfied around Washington with international trade. But one would be wrong. Instead of being content, protectionists are reported to be more active than ever.

Lobbies are trying their best to keep out foreign oil, with a special drive against growing imports from Western Canada though these do not yet balance Eastern Canadian imports from the U.S. of petroleum products. There is also a last-ditch battle by protectionists in general against the renewal of the Reciprocal Trade Agreements under which the first breach was made in the prohibitive Hawley-Smoot tariff well back in the early days of the Franklin Roosevelt regime.

If their own interests were not so gravely concerned, outsiders including Canada would be rather amused at the strange elephant and mouse attitude of many big and flourishing American industries. At the tiniest trickle of competitive imports they run crying to Washington for protection. Yet they expect other countries to buy more and more from them.

Only Half as Influential

One much cherished notion which women have long held has been smashed by the studies of an American economics team.

Recent studies of consumer buying habits show, it appears, that women do NOT control the spending of 80% of consumer disposable income. The figure is closer to 45%.

The 80% figure may once have been accurate; the new, lower percentage is the result of a change in living habits.

Now that groceries are commonly bought in supermarkets, frequently at night, father is almost as likely as mother to be pushing the shopping-cart through the aisles according to this new study. Now that dirt is removed by an electric-powered vacuum machine rather than a broom, Mr. Smith is just as apt to clinch the sale with his mechanical knowledge as Mrs. Smith with her housekeeping lore.

The sharp increase in the number of working wives in the past 20 years has contributed to the change in the balance of power over the dollar. Working couples divide the shopping chores.

High incomes have had some effect on the pattern of choice as well. As incomes rise, a higher proportion of the family money is spent on luxuries or semi-luxuries, and man and wife either split the funds available for such spending or consult before buying. The fact that most families now frequently buy a car adds to the budget an item on which male opinion plays an important part.

All these developments, and perhaps others, have steadily pushed poppa back into the spending picture. After years of watching his paycheck melt away in the little woman's hands, he's finally getting a 50-50 chance to say how it shall be spent.

Napier Moore's Scratch Pad

AT NINE O'CLOCK in the morning of June 11, via the first BBC news broadcast, the people of Britain learned of the defeat of the Liberal Government in Canada.

That afternoon, the Evening Standard ran a two-line banner headline right across its front page—"Canada's Tories Win Shock Victory," carried a personality sketch of John Diefenbaker, "the man who will be Canada's next Prime Minister," and devoted its entire editorial comment on "a magnificent and exemplary demonstration of democracy in action."

The Evening News, on its front page, splashed a seven-column banner, "Tories Sweep In—Liberal Rule Ends in Canada After 22 Years."

The Star, being Labor inclined, on its front page featured "Torch Gang Cut Into a London Bank," and on page six contented itself with a four-column heading, "Canadian Tories Go Back in Office After 22 Years" and a 24-line news item.

The average Briton seemed to take it for granted that, even allowing for the difference in time, Mr. Diefenbaker would be choosing his cabinet and moving into the Prime Minister's office.

Meanwhile, your indefatigable correspondent:

(a) Paid off his wife, who, with uncanny perception, had bet on the result.

(b) With reckless disregard for toll costs, phoned a number of Canadians in England to get their reactions. Their surprise was unanimous. Interesting, though, was the fact that those I know to be Conservatives and those I know to be Liberals were equally pleased. They all expressed the opinion that the Liberals had been in power so long that the Government had become arrogant—that was the word they used—and that its bureaucracies had come to believe themselves omnipotent, infallible.

Several of them said, "Don't forget that George Drew laid the foundation for this, and Diefenbaker's drive brought it off."

AT 9.15 p.m., as top spot on BBC's "At Home and Abroad," came a trans-Atlantic discussion of the election between Robert Mackenzie, a Canadian BBC broadcaster, and Robert McEwen, of Ottawa. Mr. McEwen said that on the morrow Mr. St. Laurent would hold a cabinet meeting to decide whether or not the government would resign or attempt to continue on a minority basis.

From 9.30 p.m. to midnight the telephone in our Middlesex cottage rang incessantly. Had I heard the broadcast? How could Mr. St. Laurent hold a cabinet meeting when nine members of his government had been repudiated and were no longer members of parliament? Wasn't Canada's constitutional practice the same as Britain's? Wasn't it obligatory upon the Prime Minister to go forthwith to the Queen's representative and hand in his seals of office? There was, in short, considerable confusion.

Next day, the Standard's Londoner's Diary recalled that in the British General Election in December, 1923, the Tories under Stanley Baldwin lost 90 seats. Standing in the House was: Conservatives, 258; Liberals, 159; Socialists, 191. With less than half the total number of seats, Baldwin had lost control of Parliament. He said he meant to hang on until he was kicked out. He hung on until the following February, when a combined Social-Liberal vote defeated him.

That day I went up to London. Altogether I met 16 people—two Canadians, seven Englishmen, seven Americans. In each case their conversation was mainly about the election. On no previous visit to Britain have I encountered as much interest in Canada's domestic affairs.

• • •

IN SCOTLAND'S MAGAZINE, an excellent publication, a writer discusses a suggestion that as a method of delighting visitors with something truly Scottish, more people should wear the kilt. He makes the point that the glamour of the kilt depends very much upon the body that is wearing it, and says that there are many young and handsome policemen whose physical excellences are lost in the uniform blue; asks if they couldn't be put into some of the gayer tartans for the summer. Then he crowns it: "This sort of thing is done in other countries. The Canadian Mounted Police in their scarlet breeches are a great attraction at Banff Springs and Lake Louise."

• • •

AT AN AIR SHOW at Southport, the last of Britain's famous Spitfire fighters made its last operation flight.

Following the display, officials were staggered when a number of young spectators asked, "Can we see the American Spitfire?"

This was too much for ex-R.A.F. men. They burned up. As a result, an announcement was made over the loudspeakers: "We would like to point out that the Spitfire is a British aircraft—there is no such thing as an American Spitfire."

The one remaining Spitfire is back at Biggin Hill, in Kent. It will be kept to lead the yearly fly-past which commemorates the Battle of Britain in which the Spitfire squadrons, against frightful odds, beat back Hitler's air armada. The few to whom so many owed so much.

Stop Me, If—

A pedestrian is one who walks when you are walking. A jay walker is one who walks when you are driving.

• • •

A canny farmer, who made it a rule to think before speaking, was approached by a stranger one day and asked, "How much is that prize jersey heifer of yours worth?"

The farmer thought a moment, then asked, "Are you the tax assessor, or has she been killed by a train?"

Post Scripts

Heads Cancer Society

New national president of the Canadian Cancer Society is Carl Burton French of Toronto. He was elected at the annual meeting of the organization in Calgary this month.

MR. FRENCH

Carl French is a member of a growing wave of people on this continent who have reversed a former trend and moved from the United States to Canada. He came here in 1935 as secretary-treasurer of Eldorado Mining and Refining Co.

He was born in Burlington, Michigan in 1902 and attended high school and college in Battle Creek and graduated from the Northwestern University in 1929. Later he attended Kent College of law in Chicago and was called to the bar in the State of Illinois in 1935.

French is president of X-Ray & Radium Industries, Ltd., a company which was established in 1945 and manufactures electro-medical equipment, isotope engineering and supplies and industrial instrumentation. He is also president of Dial & Instrument Finishers Ltd., of Montreal and Radium Luminous Industries Ltd.

He got interested in cancer as a canvasser and was national campaign chairman of the Canadian Cancer Society from 1949 to 1951 and has served on the executive of the organization for almost ten years. He is also a director of the National Film Institute and president of the Medical Exhibitors Association of Canada.

In the first world war he served in the U. S. infantry and retired with the rank of lieutenant.

Married, with a family of two grown daughters, Mr. and Mrs. French make their home in Toronto but also have a hobby farm near Mono Mills in the Caledon hills country, 30 miles northwest of Toronto, where riding is a favorite recreation.

• • •

Top Engineer

A steel company executive from Sydney, N.S. took over as president of the Engineering Institute of Canada at the annual meeting at Banff this week. He is Clement Matthew Anson, vice president and general manager of Dominion Iron and Steel Ltd., and two other associated subsidiaries of the Dominion Steel and Coal Corp. He is the third generation of his family to be making steel.

MR. ANSON

Anson's grandfather built blast furnaces in India and the United States, as well as at home in England. His father, a steelmaker, and an open-hearth man, took part in the original development and production of raw steel for stainless steel products. He was one of the organizers of the Steelworkers Union of England, and eventually became a manager of a steelworks in Australia.

A child at the time his family left England, Clement Anson was familiar with the laboratory of the steel plant at fifteen, and assumed the duties of superintendent of a new steelmaking plant three years later.

At 20 he left Australia to enroll at McGill University in Montreal from which he graduated with a bachelor of science in metallurgy in 1925. During summers he worked at Dosco starting as a laborer in the blast furnace department. In 1940 he became general manager of Dominion Iron and Steel, and subsequently his responsibilities were enlarged to include Seabord, Dominion Limestone, Pender, and Dominion Shipping.

Anson's responsibilities cover not only the basic steel making and steel fabricating operations of the huge Sydney plant, but also include limestone quarrying at Aguathuna or Port au Port, Nfld.; the manufacture of wire and nails at James Pender and Company, Saint John; the power generating and distributing network carried on by the Seabord Power Corporation Limited, Cape Breton, and the shipping operations of Dominion Shipping Limited.

A member of the Canadian Institute of Mining and Metallurgy, the British Iron and Steel Institute and the American Iron and Steel Institute, some of his other professional activities include membership in the board of governors of the Research Council of Nova Scotia and of the Nova Scotia Centre for Geological Sciences.

In 1950 he became the first engineer in the steel industry to have the honor of receiving the two awards of the Engineering Institute, the Julian C. Smith Medal, presented to him in 1950, and the Leonard Medal in 1954.

Mr. Anson is married to the former Dorothy Elizabeth O'Neil; they have two children, a son and a daughter.

• • •

First Canadian to Win It

One of the highest honors the 1,200-member American Association of Cereal Chemists can bestow on one of its members is the award of the Thomas Burr Osborne gold medal. Struck in 1926 as a tribute to the life work of a distinguished scientist it has only been awarded 10 times.

DR. ANDERSON

Until this year its recipients were always Americans, but at the annual meeting in San Francisco the award went to a Canadian, Dr. John Ansel Anderson, chief chemist and director of the research laboratory of the Board of Grain Commissioners at Winnipeg.

British-born Anderson, whose father was a Congregational minister near London, wanted to come to Canada when he was 16. His parents however persuaded him to wait a couple of years. During that waiting period he worked part of the time on a farm, part in a ship building plant at Liverpool. He reached Canada in 1922 and headed for Alberta where he took a farm job. Here he learned to handle a 10-horse team to break up prairie sod. After three summers he decided there were better opportunities if he could make himself a scientific authority. He attended the School of Agriculture at Olds, later the University of Alberta, graduated in agriculture in 1926 and took a Master of Science degree in plant bio-chemistry in 1928.

About this time he was one of three in line for a staff position with the division of applied biology of the National Research Council. A grant by the Council enabled him to continue post graduate study in England where he took his doctor's degree in organic chemistry at the University of Leeds. He studied for a brief period in Austria. Returning in 1930 he went to the Research Council at Ottawa, his first job, as an agricultural scientist.

There has only been one other. He remained with the Council until 1939 when he was picked to succeed Dr. W. F. Geddes as chief chemist for the Board of Grain Commissioners.

A typical scientist, Anderson is quiet, deliberative and pre-occupied with the kind of work he enjoys. He is married and has two sons.

What Others Are Saying

Editorial of the Week

Must Sell our Wheat

Toronto Globe and Mail

A change of Government at Ottawa paves the way for a primary marketing job that has been delayed for too many years. It is to sell wheat. If recent methods should be allowed to continue, our wheat export business will be running behind production by as much as three crop years. In such cases the economic alternative should be automatic: it is simply to clear the inventory in preparation for a fresh start out of which wheat growers may again expect to receive regular income for harvests within the crop year in which they are produced.

The basic handicap the Dominion wheat marketing program has suffered has been, of course, the rigidity of the Government's monopoly. That monopoly co-operated with the United States under the International Wheat Agreement to maintain high selling prices at a time when world prices were falling. The withdrawal of Britain, largest world importer of wheat, from the IWA was a result. It was soon thereafter that the United States began to unload its price-support surpluses in all directions around the globe on cut-rate or give-away terms.

The Canadian surplus was left to grow and grow while American wheat, sold on a charity basis and under forty-year payment terms, began to fill the needs of some of Canada's former customers. Our crisis in wheat today is that unless we sell our accumulated surpluses from former years, the wheat industry will go into a rapid decline with injury to the whole national economy.

Economically, Canada lives in the whole wide world. It is a competitive world. And if we are to live up to our pretensions as a trading nation, we must begin now to compete.

Other People's Views

LIVELY TIMES lie ahead in the House of Commons, predicts the **Peterborough Examiner**, "Mr. Diefenbaker and his Cabinet, unused to power and psychologically attuned to giving criticism rather than taking it, will face a strong and knowledgeable Opposition."

IT WAS MORE than just a victory for the Conservatives, comments the **Ottawa Journal**, "it was victory as well for countless thousands of Liberals who joined with Conservatives to preserve their Liberal creed — to rebuke men who had betrayed and deserted it. For Canada, for all who value freedom, the gain will be great."

THE LIBERAL GOVERNMENT simply died of old age, thinks the **Montreal Star**, "People had had enough of Liberal rule and in different sections of the country the reason for their ballots varied. In the Maritime provinces there was irritation over Liberal boastings about a prosperity which had passed them by. On the prairies it was the choked grain elevators and the wheat surplus. In Ontario it was a return to historic allegiance and the desire to provide a counterpoise to the solid Liberal support in Quebec."

UNITED STATES is going to need oil from this country, says the **Edmonton Journal**, but "Canadian producers need not be complacent about the future, for in American markets they must compete not only with domestic crude oil but also with imports from other oil areas of the world."

LIFTING OF UK travel ban to Canada is hailed by **Saint John Telegraph-Journal**. "Freedom of travel will allow people on both sides of the Atlantic to get to know each other better and to appreciate mutual problems."

The Financial Post

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June 15, 1957

Tory Swing Was Nation-Wide

Since 1867 No Party Ever Before Gained Seats in All Provinces

By J. B. McGEACHY

Elections are sometimes won by luck or a local turn of the tide; but last week the Canadian Tories gained seats in every province. No party had ever done this since Confederation. Clearly there was no fluke here, no mere regional disturbance. Something "nation-wide" happened.

It's the people with no umbilical attachment to any party, known as floaters, the thinking minority or politician's bane, who decide whether any government stays in or goes out. Usually in spread-eagle and diversified Canada it's hard to pick out one paramount factor that made up the floaters' minds. Exceptions were reciprocity in 1911, conscription in 1917, hard times in 1930. In these elections almost everyone voted on the same single issue. What about 1957?

Tens of thousands cast their first Tory votes on June 10; and they certainly didn't all do so for the same reason. Some in the Maritimes switched because they're not sharing the general prosperity; some in Quebec because Maurice Duplessis' hatchet-men told them to ; some in Ontario because they trust Leslie Frost; some in Saskatchewan because they want a dam or are proud of John Diefenbaker.

But these sundry local and personal impulses hardly add up to a national swing on last week's scale. What was the highest common factor?

Maybe it was the Diefenbaker personality. He showed astounding vigor. He was still full-voiced and lucid, within normal campaign limits, at the end. He was also friendly and folksy (horrible word) in a way that wasn't phony. He was full of confidence. I've been told by eminent Tories that, since he was chosen leader in December, he has shown all possible magnanimity to those who opposed him then.

These are pleasant qualities and it's self-evident that John Diefenbaker is an attractive figure. So of course is Louis St. Laurent but in quite another way; he was a father figure. Diefenbaker is more like a big brother though not at all in the Orwellian sense. His platform style may be too emotional, too reminiscent of Billy Graham, for some tastes; but he is the most effective orator the Tories have found in a long time.

Elections, however, are seldom won by a personality alone, though Eisenhower managed it. What question troubled, concerned or inflamed Canadians from St. John's to Victoria? It seems plain to me that the decline of Parliament, or the contempt shown to it by some ministers, is the answer.

Two qualifying observations are needed. The Liberal majority was to blame if indeed C. D. Howe ran his massive departments like a big business in which he held 51% and MPs were minority shareholders with only a nuisance value. Liberal back-benchers showed no rebelliousness (the kind of spirit that can lead on to power and fame, e.g., Churchill) and rarely used their power to discipline the Cabinet. Given this free rein, ministers of any party become autocrats.

The second point follows logically. Grits as such are not less, or more, parliamentary than Tories as such. If the Conservatives stay long in power with big majorities, their ministers will show autocratic leanings too. If they bring forth a C. D. Howe, they will wish to use his gifts.

Even without long tenure, or a substantial margin of seats, or a C. D. Howe, they are sure to find that a "big government" needs strength. If they want to govern and at the same time restore Parliament's prestige and authority, they will have to allow more free votes (divisions in which the whips don't flail, and every man can let conscience be his guide) than the Liberals did. They will have to give House committees wider scope and freedom to call witnesses, and the Senate more useful jobs.

If the rights of parliament are not really a party question, what is? It's hard to say. The labels Liberal and Conservative today have little meaning expressible in fixed principles. This is to the credit of these parties; it is among the peculiar and eccentric groups that one finds the dogmatists for whom the truth was revealed, once and for all, by Karl Marx or Douglas. Democratic politics are pragmatic.

What about collectivism? The really fundamental question in most modern states is: To what extent does the smooth running of a market economy require management of the money flow, exchange values, investment, trade, marketing and redistribution of national income by "social security?"

In theory, Tories believe in a strong executive and so are more collectivist than the individualistic Liberals. Yet in the U. S. today's conservative wants laissez-faire while today's liberal is a near-socialist like Roosevelt. This is semantics gone haywire.

In early Canadian times when the tariff was a genuine party issue (instead of a bogus one as it has often been since 1900), it was the Tories who introduced protection, a collectivist measure, to the horror of libertarian free-traders. Today, however, it's difficult to distinguish Tory and Liberal views on the use of state power.

J. B. McGEACHY

"But the main point is that new men are in office with roughly the same philosophy of government as their predecessors. On collectivism, key issue in modern states, it's hard to tell the parties apart."

No Debate on Money

The recent campaign, though "tight money" was called an issue, produced no real discussion between them on the related questions of inflation, dollar value, investment (home and foreign) and external trade; perhaps on the justified assumption that it would be over the heads of 90% of the audience. The only social security measure that made frequent headlines was old age pensions; but this discussion was sheer auctioneering.

The old age pension isn't intended to be a living wage. If it were, all incentive to save would disappear for several million Canadians, and that would be a devastating public misfortune. The pension has gone up from $20 to $46 because prices have risen and because spending money so distributed is a cushion against hard times for everybody.

But has anybody tried, in a systematic way, to relate the amount of pension to national revenue, cost of living or subsistence, average savings, private pension plans and the need for this particular preventive of depressions? Not that I know of; and so the only question for party chiefs is: How far should I or need I go to get enough votes?

What it comes to is that each party is about as collectivist as the other; though, Diefenbaker himself may be left of Louis St. Laurent and other eastern Liberals; just as far that way, perhaps, as Eisenhower is to the left of some Democrats.

There was one question on which the parties did diverge on traditional lines. The difference, it seems to me, won votes for the Tories. My judgment is based on an astonishing flow of letters to me from all parts of the country during the Middle East crisis.

Few Canadians now think that Canada should cry, "ready, aye ready" whenever Britain is in any trouble; but some, no doubt a minority, do think we should have given all-out support to Britain on the Suez question. A much greater number were dismayed by proceedings in the United Nations.

The UN Decisions

Wholly non-judicial and strictly political, the UN assembly voted in blocs as whatever capital guides Afro-Asians concurrently wished these blocs to vote. The result was to humiliate Britain and France, and to elevate, almost sanctify, Nasser first as the aggrieved party, and then as top dog — though it was he who had broken the law of nations, such as it is. These were the unjust results the U. S. insisted upon.

The Canadian public knows that Lester Pearson fought against censure of the Western Powers and did an excellent job of conciliation. Nevertheless, some Canadians thought that the late government (on other occasions besides this) undervalued the British tie and overestimated both the usefulness of UN and the prudential necessity of agreeing, more or less, with the U. S. On this account, many of these Canadians voted Tory rather than Liberal. There may be no marked change in Canadian foreign policy. I only report one facet of the voting swing about which I haven't any doubt.

But the main point is that new men are in office, with broadly the same philosophy of government as their predecessors. The change should at any rate dispose of the curious idea that the Conservative party in Canada was somehow "preposterous" and that its adherents were mental dodos. If the frequently patronizing holders of this view really believed it, where did they think an alternative government was to come from—ever?

After all, the Tories have quite a history in this federation. They created it. They built the first trans-Canada railway, amid hoots and jeers from opponents. They raised the first Canadian militia (more hoots and jeers) which made possible withdrawal of the last British garrison; and they organized Canada's first important war effort, an effort which gained world-wide recognition of the country as a full-fledged nation.

They made the first Canadian diplomatic appointment (Galt to London, England); they negotiated the first Canadian treaty; they put up the still surviving tariff without which there would be no Canadian industry to speak of. Unquestionably, in early days, the Tories rescued Canada from absorption, economic, political or both, by the U. S. People who think this wasn't worth doing should form an annexation party right away.

Later on the Conservatives gave votes to women, and abolished patronage in the civil service. They created the Bank of Canada, indispensable monetary instrument. They set up the CBC, without which Canadian radio would languish in a bog of mediocrity, with a few orchids showing above the surface; the CNR and the TCA. Under Bennett in 1935 (but this looked like a deathbed conversion) they introduced Canada's first all-round social security scheme.

If the Tories have not had an equal share of power in recent times, one reason is their unpopularity in Quebec. This in turn is due to the cumulative effect of the hanging of Riel in 1885 (it's by no means far-fetched to go so far back), conscription in 1917 and Bennett's failure to cure a depression for which he was in no way to blame.

Here are some figures. In the last 15 elections (1900-57 inclusive) the Tories have only twice made a real impression in Quebec: 1911, reciprocity (with its annexation scare), 27 seats out of 65; 1930, depression, 24 out of 65. In the other 13 elections the average Liberal score in the province was 4.6 seats or 7%. In the 15 elections, members elected outside Quebec: Libs: 1,102; Cons. 1,-162. It would be good for the country if French Canada could share in national shifts of opinion. Mr. Diefenbaker needs an Ernest Lapointe.

It would also be a blessing if western voters would give up their splinter groups which can do nothing but exert undue regional pressures or cause parliamentary deadlocks. They can look to Britain or the U. S. to find proof that boring from within is an effective way to get radical ideas accepted by big parties—and enacted.

As to what will happen politically, the Diefenbaker government seems likely to get through the business of at least one session of parliament without trouble. It should have the tolerance of the three opposition groups for that length of time. None of them (especially not the Liberals in disarray) wants a very early dissolution that could lead to further Tory gains, and would call for new campaign funds in a hurry.

The sometimes awkward question of dissolution isn't likely to arise. Mr. Diefenbaker, after naming ministers, can ask for and get dissolution when he thinks fit. But to call an immediate election would hardly be astute. It would cut two ways. It would catch the enemy unprepared; but irritate the public.

A session or a year, and then a vote; this seems the best bet.

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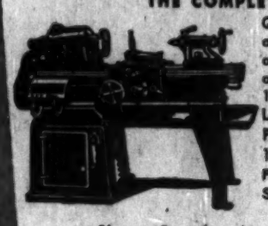

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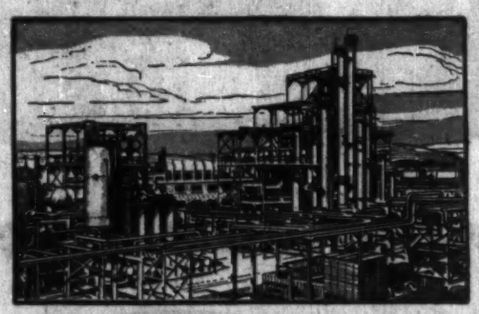

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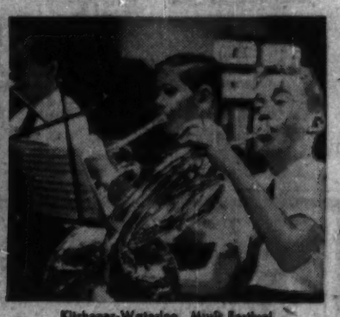

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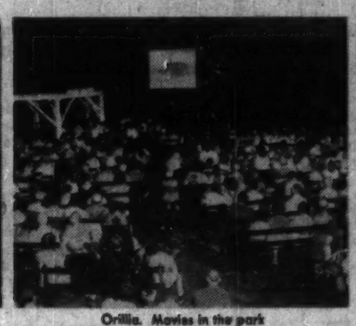

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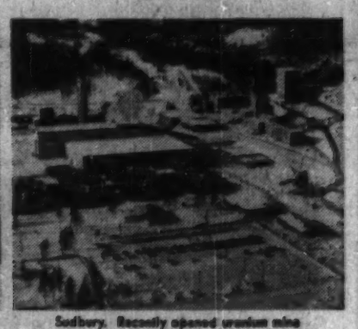

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ANNOUNCEMENT

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WARD W. DWORSHAK

John H. Shiner, Vice-President, Marketing, announces the appointment of Ward W. Dworshak as General Sales Manager, United States. Following 3½ years service in Europe in the U. S. Army, Mr. Dworshak owned and managed a Ford tractor and implement dealership in Idaho. In 1954 he joined the Tractor and Implement Division of Ford Motor Company, Detroit, serving successively as Manager of Dealer Planning Department; Manager, Marketing Services; and Assistant to General Sales Manager.
A graduate of West Point, Bachelor of Science degree, Mr. Dworshak is a past member of The Grange and has served on the United Foundation of Detroit.

Steel May Get Shot-in-Arm If Tariff Changes Approved

(Continued from page 1)

could place virtually the entire $100 million-a-year pipe market in hands of domestic producers.

They had the bulk of the smaller diameter pipe market anyway; higher tariff protection on larger-diameter pipe and oil-country goods (casing pipe for oil drilling) could swing bulk of this market to the Canadian producer as well.

More Comment

On the tariff changes proposed for heavy structural steel:

"They will certainly intensify our studies on further expansion and diversification moves in the structural field," D. S. Holbrook, president of Algoma Steel Corp. told FP this week.

It looks almost certain now that someone will be ready to jump into production of wide flange beams in this country for the first time.

"The report is a most exhaustive one and seems to follow the recommendations of the industry insofar as simplification is concerned," H. Stipe, assistant vice-president of Steel Co. of Canada told FP.

"The custom's tariff covering steel products was created 50 years ago. On its original modest structure have been imposed additions, revisions, exceptions, treaty rates, and drawbacks, which have gradually transformed it into a very complex tariff structure. We are pleased that the Tariff Board has recommended a simplification."

But as to actual rates of duty, the Stelco sales head said: "The board's recommendation as to rates of duty appear to fall short of the rates the industry considered sound, having regard for the wide disparity between wage rates paid on this continent and elsewhere."

C. S. SMITH

assistant general manager and comptroller, Dominion Paper Box Co., Toronto, has been elected president, Canadian Paper Box Manufacturers Association Inc.

French Oil Giant Finances For Exploration in Canada

By ERIC RICHTER

MONTREAL (Staff) — **French Petroleum Co. of Canada**—a new Canadian company which is the subsidiary of one of the "big eight" International oil giants — is shooting for a major role in Western Canada's oil and natural gas development race. (Details, p. 10.)

Next week an issue of $15.8 million participating preferred stock ($10 par) shares of French Petroleum is expected to be offered at par by a syndicate headed by **W. C. Pitfield & Co.** The offering is part of a 1,580,000-share issue, the balance of which is being sold privately, also at $10 per share.

Proceeds of the issue will be used to carry on and expand the company's exploration and other operations including development of extensive acreage already held and acquisition of oil reserves and more acreage.

Parent company of French Petroleum is **Compagnie Française des Petroles** (CFP), a French petroleum company with worldwide oil interests. Last year, French Petroleum acquired all of CFP's assets in Saskatchewan, Alberta and British Columbia.

At April 30 of this year, French Petroleum held or had the right to acquire working interest in 2,767,934 gross undeveloped acres (equivalent to 1,650,488 net acres) valued at over $10.4 million in the three provinces. Consultants have estimated company's share of gross remaining crude oil reserves on April 30 at 10,386,000 bbl. proven.

President of French Petroleum is Henri Charles Marie Evremond de Cizancourt, an employee of CFP for 30 years. Prior to being transferred to Canada to take charge of CFP's Canadian operations, he was chief geologist for the company.

Other officers are William T. Hamilton, Calgary, vice-president and secretary; Henri J. M. Champin, Paris, France, vice-president and assistant secretary; and Rolland L. H. T. De Montaigu, Calgary, treasurer.

Directors are Jaques C. V. Benezit, Frederic R. Berbigiere, M. Champin, all of Paris, France; Mr. de Cizancourt, John J. Saucier, QC, both of Calgary; Wilfrid Gagnon, Montreal and Phillip R. Payn, Como, Que.

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Anthes Appointment

DAVID RUSSELL

The appointment of Mr. David Russell as Executive Vice-President of The Anthes-Imperial Company Limited was recently announced by D. G. Willmot, President. Mr. Russell's duties will include full responsibility for the Sales Divisions of the entire Company and the administration of the manufacturing plants in Western Canada.

Tariff Board Hits Canadian Shoe Industry

OTTAWA (Staff)—The rubber footwear industry's hopes of getting increased protection from imports are wearing thin.

The claim that Far East and British products are allowed in at too low a value has met with scant sympathy from the Tariff Board here.

The Board's findings—it wasn't asked by the Minister of Finance for recommendations—give hard-hitting answers to these six complaints of the industry:

—Far East "tennis shoes" have 60% of the Canadian market but their cheap price is responsible for the increased size of the market.

—Waterproof rubber imports have doubled to 11.2% of the market here in the past two years but Canadian production isn't changing much.

—It's true Canadian exports are now negligible but they went down from six million pairs in 1947 to one million in 1949, then went (and have stayed) below 200,000 pairs in 1950 when foreign producers got back into production after World War II. In any case nothing can be done about this.

—Canadian industry does seem to be efficient but it can't get around the overseas advantage of low-cost labor which makes up a high percentage of total price. (In 1955, weighted male-female hourly pay rate for industry here was $1.17, but only 58c for the British and just 4c to 15c for Hong Kong.)

—Contrary to the industry claim, plastic rainwear footwear has indeed measurably reduced demand for rubber footwear. Despite cold weather restrictions women and children use the substitute most of the year.

—Perhaps it's true that the Canadian rubber footwear industry is essential in peace and war but the Board isn't going to attempt to judge.

Thus the outlook is dim at present for these industry requests:

1. Non-British "tennis shoes" should have fixed values imposed which bear a "reasonable relationship" to the average all-in costs of the three lowest-cost Canadian producers of comparable lines. Present tariff scale is 20% for B.P., 27.5% for MFN and 40% for General.
2. Similar fixed value for rubber boots imports, plus 15% ad valorem on B.P. (now free). MFN is now 22.5%; General is 25%.

Rubber footwear is produced by six firms in seven plants employing a total of about 5,000 workers —one of the smallest Canadian industries.

In Quebec province: **Acton Rubber** at Acton Vale, **British Lumber** at Lachine, **Dominion Rubber** at St. Jerome and **Miner Rubber** at Granby.

In Ontario: **Bata Shoe Co. of Canada** at Batawa, **Dominion Rubber** and **Kaufman Rubber** both at Kitchener.

Bata was not a party to the higher tariff application. It has "sister" plants in the U.K. and India.

The industry's position was supported by the Canadian Labor Congress and opposed by (a) the Canadian Association of Consumers and (b) Canadian Importers and Traders Association.

Denies Offer Made To Gaspé Strikers

MONTREAL (Staff)—Conflicting reports of a company offer to **Gaspé Copper Mines** workers has aroused interest at Murdochville, stricken by strike now in its 15th weeks.

Noranda official in Toronto said to the FP that to his knowledge no offer had been made.

Steelworkers Union claims that company had made offer to the men in a move to pry them away from allegiance to the union.

Famous Players Net Up Slightly

Consolidated net profit of **Famous Players Canadian Corp.**, Toronto, for three months ended March 31, 1957, was $807,598, 2% higher than $791,836 for the same period in 1956. Capital gains are included in these unaudited results.

Company showed an improvement in its operations during first-quarter 1957, says President J. J. Fitzgibbons. Further reductions have been made in heavy amusement taxes, he said.

In the early weeks of the second quarter results were not up to expectations, but company looks for "decided improvement" for balance of quarter.

Profit on sale of fixed assets was $101,529 in first quarter 1957, and $217,082 a year earlier.

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For example, the man with a loss in some stock who keeps hoping against facts that the price will somehow rebound.

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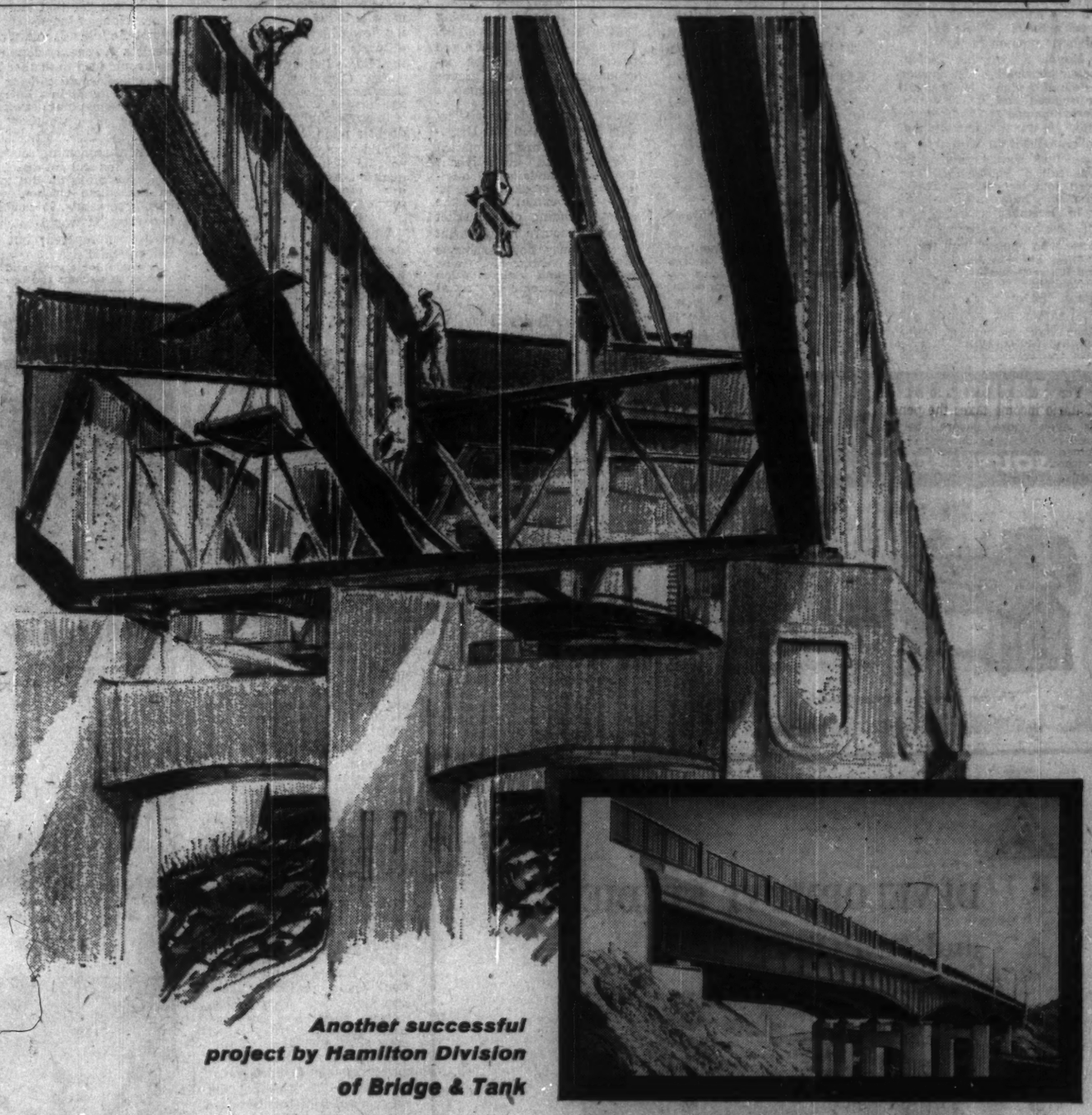

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Your Taxes: Experts Give Their Views

More than half of the Federal Government's revenue last year came from income taxes. Taxes on corporation profits alone accounted for 25% of revenue.

Ottawa's heavy dependence on this single source of revenue is prompting serious questions: How would deficits be overcome if income should fall off? Should there not be greater diversification in sources of government revenue?

Some of Canada's top taxation experts, both within and outside the Government, discussed these and other questions at an income seminar recently at Queen's University, Kingston, Ont. Here are digests of their speeches:

Corporate Tax

By W. S. ROTHWELL,
Treasurer, Abitibi
Power & Paper Co.

An aspect of our high corporate income taxes that receives little publicity or discussion is the contribution that it must have made to the serious inflation of the last several decades. Business must earn a profit if it is to remain healthy. If costs are increased, whether by increased wages, increased taxes or for any other reason, the result is increased consumer prices.

If it is correct to say that higher corporate income taxes result in higher consumer prices, then what contribution to inflation of the past two decades has been made by our high income tax system? It would take a well-qualified team of experts to find a precise answer but we can be sure that the very great increase in tax rates since 1937 has contributed very materially.

One serious criticism that can be made of our tax collection system is in respect to the severe interest penalty levied on business if it underestimates its net earnings and thereby underpays its income tax installments which must commence six months prior to the close of its fiscal year.

My objection is not to the interest penalty rate of 6% but to the fact that interest penalties are not allowed as a deduction in determining income subject to tax. This has the effect of increasing the penalty to an effective rate of 12%.

For companies subject to Ontario income taxes the penalty is even more severe, because under Ontario legislation the combined interest penalty is 12% without recognition as an expense, resulting in an effective penalty interest rate of 24% per annum.

From a corporate viewpoint it is indeed unfortunate that all of our provincial governments were unable to resolve their revenue difficulties without re-entry into the field of corporate income taxation. Three of our provinces now impose corporation income taxes of one kind or another.

The re-entry of the province into this taxation field again exposes corporations to multiplicity of returns, differences in definitions of income, questions as to location of income and a tax burden that falls unevenly on Canadian taxpayers according to location of plants and offices. Not the least of the problems is that of double taxation.

The situation is at its worst in Ontario whose corporate citizens are called upon to shoulder a tax burden 2% higher than in any other province in Canada.

The burden on logging industries in Ontario and British Columbia is even more severe because of an additional tax of 9% on logging income. This additional levy is allowed as an expense in computing income subject to federal tax so that the effective logging tax rate is approximately 4½%.

It will be readily understood that the maximum income tax rate in British Columbia is approximately 51½% and in Ontario, approximately 53½%.

Imposition of such taxes by a province discriminates against its own corporate citizens and creates a business climate within its borders that discourages the entry of new business enterprises and the expansion of established business, all to the long range detriment of the province and its citizens.

Your Income

By H. H. STIKEMAN, Q.C.

If a transaction is "an adventure or concern in the nature of trade," the resulting profit may be taxable even though the transaction was not itself a trade or business. This is, in a sentence, the burden of the judgment of the learned president in the first case on the point that has come before the Exchequer Court.

It is therefore clear that the inclusion of the term "adventure or concern in the nature of trade" in the definition of "business" in the Income Tax Act has "substantially enlarged the ambit of the kind of transactions the profits from which were subject to income tax."

Perhaps the most important feature of this decision is the conclusion of the court that absence of intention to resell for a profit is no defence. An item is either acquired as an investment or it is not. If it is not, any gain may be taxable.

This judgment has also underscored the working rules which I developed in my article entitled "The Vanishing Capital Gain." It has rendered some of them obsolete as tests, although as safety measures they still have value:

—Do not do it on purpose. If a capital gain is to be had, it cannot be deliberately sought.

—Do not do it often. Multiplicity is one of the greatest enemies of the true capital gain.

—Avoid transactions similar to those which have once been your main source of business income even though many years in the past.

—Do not have, or appear to have, the intention of resale for a profit at the time of acquisition. The suspicion aroused by original intention dies hard. It is always better to avoid suspicion by not appearing to have such an intent than to be forced to disprove it or to evidence a change in intention after the event.

—Do not deal with an asset that is unlikely to produce revenue in its present state. Since the basic proposition is that it is only from the realization of an investment that a true gain can be obtained, it follows that the less a so-called investment is likely to produce revenue the more difficult it will be to establish investing intent.

The tests of a true investment given above make it very difficult to argue that such items of commerce as raw land, unproven oil acreage, speculative securities which have never paid dividends or other assets which cannot be made productive of a yield save by converting them in some fashion, have been acquired as investments.

It is for this reason that most of the decisions affirming assessments on profits realized from the development and sale of real estate have gone against the taxpayer. It is extremely difficult for any taxpayer buying raw land to establish that he did not buy it with the intention of selling it but rather of holding it as an investment.

Instances exist, however, where taxpayers were successful in proving their intention to erect upon the land buildings for rent, such as apartment houses, shopping centres and the like. In all such cases the reasons for eventual sale require a great deal of proof and the utmost credibility.

—If you must sell, do not sell for profit alone.

—If you can do it alone do not do it as a partner or syndicate member.

—Hold for as long as possible and whenever possible make sure there is a yield.

To determine when an expense is on account of capital and thus not deductible, the businessman must know what the law considers capital as opposed to the accountant. Fortunately the matter has been well defined in a long series of judicial decisions in Canada and the U. K. These cases have decided that capital, in the income tax sense, is any source of income as opposed to income itself.

Thus the right to carry on business or a franchise or a lease is a capital asset and sums spent to protect it or acquire it are not proper deductions. Anything which is of an enduring advantage or benefit to the trade or which requires the making of an expenditure once and for all as opposed to recurring expenditures, is capital.

There are five tests of the capital nature of an expenditure:

- Does the deduction relate to the main framework of the company's business? If so, it is capital and not deductible.
- Is the expenditure made in the capacity of trader or owner? If the former, it is allowable unless specifically prohibited and if the latter, it is generally not deductible as being made on account of capital.
- Is the expenditure recurring or was it made once and for all? If recurring it would probably be a trading expense and deductible. If made only once it would, prima facie at all events, be on account of capital.
- Is the expenditure made in connection with or out of fixed as opposed to working capital? If so, then it would be inadmissible as a deduction.
- Did the expenditure bring into existence a permanent asset for the business? If so, it would be a capital payment.

Tax Policy

By DR. A. K. EATON
Assistant Deputy Minister
of Finance, Ottawa

In a country where such a small minority will admit of being Socialists and where still fewer accept the practical outlawry of professing Communism, it is perhaps somewhat surprising to find the degree of electoral support for governments that legislate close to one third of their incomes away from those to whom it belongs and use it for social or communal purposes in the political sector of the economy.

Statistically, Canada has moved about one third of the way to Socialism, while philosophically, Canadians seem scarcely aware of having left the home base of individualism.

Taxation has become a dominating factor in our lives. It is an inflexible fact in family budgets to which provision for a rainy day must always take second place.

Good ways of raising revenue are awfully scarce and as with all scarce things there should be economy in their use. Thus, the federal Minister of Finance has to decide whether he should use certain good tax sources or leave them to be used by provincial governments.

Taxes on gasoline, amusements, transfers of securities, are examples of taxes which have in the past been used by the federal government but have been subsequently relinquished for use by other levels of government.

Looking at the federal tax structure we find that of the $5 billion odd currently budgeted for, just over $2 billion comes from taxes on commodities, i.e., indirect taxes, from customs duties, sales taxes, excise taxes and excise duties.

Another $1.3 billion comes from corporation profits which cannot be said to bear any close relationship to ability to pay. A low income person may have a share in a corporation taxed at 47%, while a well-to-do person may own all the shares of a company taxed only at 20%.

Our personal income tax, producing about $1.5 billion currently

(Continued on page 10)

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LOOK what Shakespeare's doing to Stratford

Writer Alan Phillips recently went back to Stratford to see what had become of his home town since "Shakespeare" took over. How had it affected the people, industries, businesses? Read the full details of what Phillips discovered.

What's so funny about GOUT?

BY KATHLEEN M. GRAHAM

Writer Graham is the wife of Dr. Wallace Graham, one of the world's leading specialists on arthritis and rheumatism, and her informative article reveals gout as one of the more prevalent rheumatic diseases.

FRANKLIN RUSSELL ASKS:

Can we control the

bloodthirsty blackfly?

It kills cattle, ruins vacations and disrupts work in the woods. Even with DDT we can't wipe it out completely—and some scientists say we'll wreck one of nature's cycles if we keep trying.

"For the sake of argument"

A. B. HODGETTS DECRIES

Our dangerous habit of twisting history

Mr. Hodgetts, who has been teaching history since 1933, discusses the responsibility of editors, newscasters and politicians, to report historical events as they *actually* happened. Be sure to read this outspoken article.

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Your Taxes

(Continued from page 9)

or 20% of the total tax burden in Canada, is the only tax, apart from the personal income tax in the Province of Quebec, that is graduated according to ability to pay.

At the recent session the government introduced into the legislation the principle of tax postponement on retirement income as a general policy. It is now available to every taxpayer receiving earned income.

Amounts up to 10% of earned income may be transferred from the current year to a locked-up fund which will start flowing back to the taxpayer in equal amounts commencing any time he wishes but not later than age 71.

There is a limit of $2,500 on the annual contributions to the fund or $1,500 for employees already under a plan. This latest move is an important step in the direction of evening up through life the flow of income for tax purposes.

Can Ruin Controls

People who love the idea of tax controls have looked with special favor upon the use of sales and excise taxes as a means of draining off excess spending power.

Manipulation of sales and excise taxes can work fairly well only if the public is not expecting the government to resort to their use. However, the public can practically ruin the effectiveness of the policy if they expect that the government is going to use them.

The other difficulty in the free use of sales and excise taxes for control purposes is the inventory problem.

When taxes are increased dealers with stocks on hand rather promptly mark-up their inventory and sell the next day at a price increased by the amount of the tax even though no tax has been paid on the stocks on hand. The government, of course, has no control over prices and can do nothing about this practice.

When taxes are lowered substantially dealers all take an inventory loss on tax-paid stocks on hand. This can be extremely disrupting, even bankrupting weaker firms.

The corporation income tax as a fiscal instrument does not appear to fit very well at all. It is pointless to take "purchasing power" away from corporations as is done from individuals with a view to cutting down demand for consumer goods since corporations as a rule are not in the market to any extent for most of these items.

A sharp increase in corporate taxes might, of course, result in a smaller subsequent flow of dividends but it is problematical how far consumer buying in Canada is supported by the spending of dividend income.

It is possible, of course, that instead of reducing the dividend flow the higher corporate tax might in some cases be passed on to the consumer in higher prices — the very thing the policy was intended to prevent.

Sales Tax

By PROF. J. F. DUE, University of Illinois

The sales tax is a firmly established element in the Canadian tax structure, and its continued use appears certain. Likewise, the use of the manufacturing level is almost certain for the foreseeable future.

While the tax as a whole functions without serious difficulties, certain features are by no means entirely satisfactory. It is highly desirable that business firms and various organizations, such as the Canadian Tax Foundation, continue to push for modifications, such as the establishment of a statutory definition of taxable price, improved operation of the valuation adjustment procedures, and improvement in the scope of the various exemptions, particularly of building materials and machinery.

From the standpoint of general governmental policy, it is desirable that further attention be given to the desirability of exempting a few major classes of producers' goods still taxable, such as railway equipment, and of excluding from tax the purchases of the financially hard pressed municipalities.

It is widely felt that many business firms have given too little attention, at higher levels of management, to the significance of the sales tax for business operation.

To too great an extent firms have regarded themselves as tax collecting agents, so far as the sales tax is concerned, leaving the task to subordinate personnel, without full exploration of the means of minimizing tax liability and interference by the tax in most efficient conduct of the businesses. More careful attention to the tax may offer substantial reward.

French Oil Giant Finances For Exploration in Canada

MONTREAL (Staff) — **French Petroleum Co. of Canada** is contemplating oil exploration and drilling in Alberta and Saskatchewan upon completion of the $15.8 million financing (see p. 1).

At present, company's exploration and drilling is being concentrated in British Columbia.

The company is at present drilling a well in northeast B. C. jointly with **Richfield Oil Corp.** Recently a gas show in a triassic formation was encountered at 11,900 ft. By participation in the drilling of this well, company will earn a 50% working interest, proportionately subject to B. C. Crown royalty, a 2½% gross royalty and a 30% net carried interest in approximately 217,000 permit acres surrounding the well.

It is anticipated Richfield Oil and the company will jointly drill another well this year on this acreage to evaluate it more fully prior to conversion to lease.

During the coming year, the two companies also expected to jointly drill a test well to evaluate a block of approximately 219,000 permit acres located in the Hudson Hope area of B. C.

In the Cameron River area, also in northeast B. C., the company will earn a 50% working interest, proportionally subject to B. C. Crown royalty, a 4% gross royalty and a 38% net carried interest in approximately 122,000 permit acres by drilling two wells, the first of which, it is expected, will be commenced during this winter.

Costs will be shared equally by the company and Richfield Oil.

Following **Union Oil Co. of California's** Granite Wash discovery in northern Alberta at Red Earth, company acquired an interest in approximately 871,000 reservation acres in this general region.

A gravity survey was recently completed and it is anticipated that a reflection seismic survey will be carried out during this winter and drilling of test wells will be undertaken on the most favorable features delineated.

The Share Offer

The participating preferred shares being offered next week are non-callable and are entitled to non-cumulative dividends of 60c per year in priority to dividends on the ordinary shares.

After a dividend of 9c on ordinary shares in any year, both classes participate in further dividends during that year in such proportion that the dividend on preferred will be six times that on ordinary shares. Both classes have one vote per share.

French Petroleum, which has an authorized capitalization of $65 million divided into 4 million participating preferred shares and 25 million ordinary shares ($1 par), was incorporated last year to engage in the exploration development and production of natural gas and oil.

On incorporation, it acquired all of the assets of **Compania Francaise des Petroles** at a cost value of $9,749,009 paying for them by the assumption of $666,826 in liabilities and issuance of 9,082,183 ordinary shares at par to CFP.

An additional 1,632,761 ordinary shares were issued CFP at $1.44 per share in liquidation of advances and a further 555,597 were subscribed for in cash at $1.44 each by associates of CFP.

Voting control of French Petroleum is held by the parent company.

World-Wide Interests

Compagnie Francaise des Petroles, itself was organized in 1924 and today has extensive world-wide exploration, production, refining and marketing interests in France, and other countries of Western Europe, Africa, the Middle East, Australia and Canada.

The Government of France has a 35% share interest in CFP which carries a 40% voting power at shareholders' meetings.

In addition to French Petroleum, CFP's far-flung holdings and activities include:

—A 23.75% interest in **Iraq Petroleum Co.** group of companies (the remaining interest being held directly or indirectly by **British Petroleum Co., Royal Dutch Shell group, Standard Oil of New Jersey, Socony Mobil Oil Co. and Participations and Explorations Corp.**) which holds oil concessions covering all of the 171,600 sq. miles of the kingdom of Iraq and all of the Sheikhdom of Qatar.

In 1956 the group's crude oil production amounted to over 260 million bbl. of which CFP's share was over 60 million bbl. The group also has important exploration concessions on the Trucial coast on the Persian Gulf to the east of Qatar, in the Sultanate of Oman and in the Hadhramaut region of Southern Arabia.

—A one third interest (British Petroleum Co. has the remaining two thirds) in companies formed to explore concessions on the continental shelf off the coast of Abu Dhabi and Dubai in the Persian Gulf. One of these companies has conducted submarine exploration and has chosen a drilling site for its first well to be spudded shortly.

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Travel Briefs

"Learn to Golf Weeks", modeled on the popular winter "Learn To Ski Weeks" will be featured this summer at **Laurentide Inn**, 56 miles north of Montreal in the Laurentians. The all-inclusive program includes room and meals, five morning golf lessons, use of the golf course on weekdays without green fees, evening golf lectures and movies. Designed for beginners at the game, this special offering comes at a minimum of $71 per person.

"Castles and Castanets", a new travelog film on Spain is available from the five Canadian offices of **Pan American World Airways** for showing to clubs, business groups, etc. The 28-minute, 16-mm. film features bullfights, carnivals in Seville, religious pageants in Malaga, bustling activity in Madrid and magnificent scenery.

Two outstanding drama events will take place this year in Belgium. The Holy Blood Plays in Bruges (presented every five years) will be given 10 evenings between Aug. 3 and 18 in the town square before the city's great carillon tower. The spectacular pageants will include 2,500 actors and 800 choristers.

Sound and Light plays at Ghent will be performed at St. Bavon Abbey from July 1 to the end of Sept. Illuminated and with outstanding musical accompaniment, the plays portray local history and legend.

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Travel Briefs

"Learn to Golf Weeks", modeled on the popular winter "Learn To Ski Weeks" will be featured this summer at **Laurentide Inn**, 58 miles north of Montreal in the Laurentians. The all-inclusive program includes room and meals, five morning golf lessons, use of the golf course on weekdays without green fees, evening golf lectures and movies. Designed for beginners at the game, this special offering comes at a minimum of $71 per person.

"Castles and Castanets", a new travelog film on Spain is available from the five Canadian offices of **Pan American World Airways** for showing to clubs, business groups, etc. The 28-minute, 16-mm. film features bullfights, carnivals in Seville, religious pageants in Malaga, bustling activity in Madrid and magnificent scenery.

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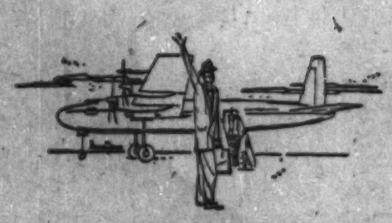

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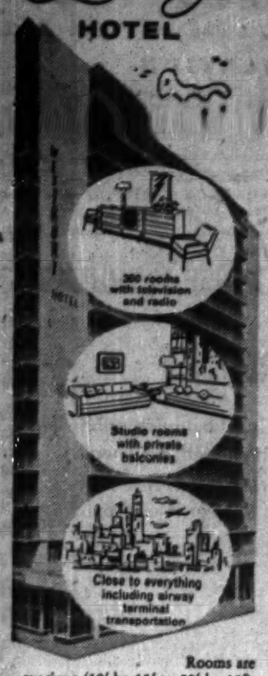

Rooms are spacious (18' by 15' to 22' by 15'). Singles from $9.50; twins from $14. The Westbury service is devoted entirely to providing for an executive type clientele.

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Bruce Hutchison writes about:

End of the Cycle

By BRUCE HUTCHISON

Among many victims engulfed by Canada's electoral volcano one of the most important has been little noticed and hardly missed. I refer to the Cyclical Budget.

Officially the Cyclical Budget was born into Canada during the victorious spring of 1945 when C. D. Howe issued his famous economic White Paper.

Unofficially the Cyclical Budget died, or at least was buried for a long time to come, on June 10, 1957.

That, it seems to me, is the first economic result of the election, discernible already while the political results are as yet quite incalculable.

On the eve of the poll I ventured to suggest here that it would offer us a partial test of the public's ability to manage its money through the agency of the state.

The test was certainly partial and we must not read too much into it.

But so far as it went, the test seemed to show that the public is not ready to face the hard decisions involved in the preservation of the spending power of its money, among them the decision to maintain a Cyclical Budget.

For though the election campaign was confused beyond imagination and the vote dominated by innumerable minor issues, we must conclude, by the rough reckoning of democracy, that the hard-money policy of the Liberal government, the Cyclical Budget and the existing revenue surplus were all repudiated.

That may not have been the electorate's conscious intention.

A majority of people may still believe in hard money and the hard, politically unpopular decisions necessary to preserve it.

Existing Methods Of The Treasury Are Condemned

Nevertheless, in practical politics, as they will be interpreted by practical politicians, the existing methods of the treasury have been condemned.

If, as seems probable at this writing, a Diefenbaker government emerges from the present parliamentary chaos and wins a second election, it will be bound by its most solemn pledges to abolish or at any rate greatly modify the financial policy laid down by Mr. Harris in his last budget speech.

As a man of honor and a politician of underestimated talent, Mr. Diefenbaker cannot do anything less.

In all the present confusion let us be clear about one thing: By attacking the current "over-taxation" of the Canadian people, and attacking the St. Laurent Government on this point more vigorously than on any other, Mr. Diefenbaker was attacking the whole theory of hard money whether he knew it or not.

The Cyclical Budget, as formally adopted by the Liberal Government in the White Paper of 1945, had a technical flavor and a fine statesmanlike sound but actually was a simple proposition, long accepted by the ordinary Canadian family in its own affairs.

The state, like the family, would spend more than it took in during hard times and, if necessary, borrow the margin.

In good times the state, like the family, would spend less than it took in and pay off some of its debt against another rainy day.

And the resulting cyclical increase and decrease in the public's purchasing power would moderate both deflation and inflation.

The Cyclical Budget made so much sense in economics that no politician attacked it when it was introduced into the theory of national politics.

Once Put Into Practice There Was An Explosion

Once it was introduced into the practice of politics by Finance Minister Douglas Abbott a nuclear explosion instantly followed.

Mr. Drew unsuccessfully attacked the government's post-war revenue surpluses as "over-taxation" and plain lunacy.

Mr. Diefenbaker attacked Mr. Harris for the same reasons during the recent election, this time with almost unbelievable success.

The strangest aspect of the strangest political campaign in our history was the government's failure to make any adequate defense of a policy which, amid its mistakes in politics, was the wisest thing it ever did in economics.

It's Useless To Argue The Budget's Merit

At this time it would be a waste of breath to argue the wisdom of the Cyclical Budget, and the disagreeable, vote-losing necessities of hard money.

There is no need in any case to argue the practical effect of the election in this vital area of society.

The practical effect is that the new government will not dare to accumulate a significant budgetary surplus even in times of boom and inflation.

That policy was tried by Mr. Harris and he perished with it.

His successor, whoever he may be, will not repeat such a lethal mistake of politics.

The future, though, is not visible very far ahead these days.

If no one knows what is going to happen in the short run to our deranged political system, no one knows in the long run what is going to happen to what has been a very orderly economic system.

The biggest economic question in Canada today is what the new minister will do about the same set of economic facts that confronted Mr. Harris. One thing he will not do.

He will not revive the Cyclical Budget—Hard Money policy which has everything to recommend it in economics and common sense but is now labeled as deadly poison in politics.

But some day, when the public learns more about money and politicians more about responsibility, that label will be removed — quite a long time from now after we have experimented meanwhile with softer money.

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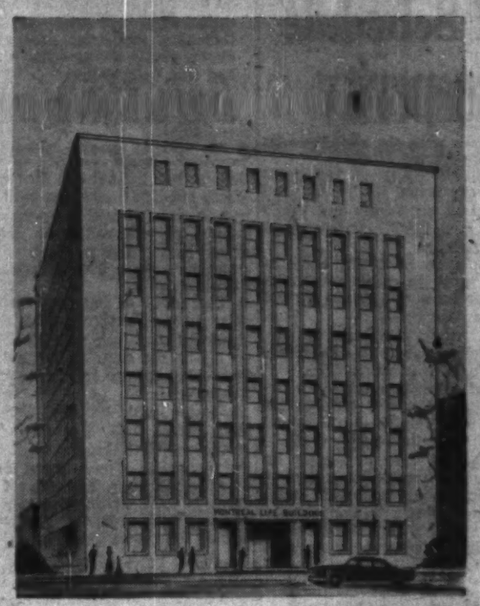

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NOTICE TO THE HOLDERS OF
CONVERTIBLE DEBENTURES ISSUED BY

CANADA SOUTHERN OILS, LTD.

Under the terms of the Trust Deed dated as of the 1st day of October, 1951 made by Canada Southern Oils, Ltd. in favour of Montreal Trust Company, Trustee, as affected by the reorganization of Canada Southern Oils, Ltd. into three successor companies, the holder of each $1,000 Convertible Debenture issued thereunder is presently entitled to receive upon conversion Voting Trust Certificates representing fully paid shares of stock of the three successor companies to Canada Southern Oils, Ltd. on the following basis:

1. Voting Trust Certificates representing 60.5 shares of the capital stock of Canada Southern Petroleum Ltd.,
2. Voting Trust Certificates representing 37.8 shares of the capital stock of Canso Natural Gas Ltd., and
3. Voting Trust Certificates representing 30.2 shares of the capital stock of Canso Oil Producers Ltd.

Notice is hereby given that on or before the close of business on July 12, 1957, holders of the aforesaid Convertible Debentures have, subject to the conditions of this notice, the privilege of exchanging each of their $1,000 Debentures for Voting Trust Certificates representing fully paid shares of stock of the said successor companies on the following basis:

1. Voting Trust Certificates representing 113 shares of the capital stock of Canada Southern Petroleum Ltd.,
2. Voting Trust Certificates representing 100 shares of the capital stock of Canso Natural Gas Ltd., and
3. Voting Trust Certificates representing 100 shares of the capital stock of Canso Oil Producers Ltd.

After the close of business on July 12, 1957, the conversion privilege of any Debenture then outstanding will return to the basis in the Trust Deed.

Under the plan of reorganization of Canada Southern Oils, Ltd. the assets of that company were transferred to the three successor companies and the successor companies agreed in the event that the Debentures were not converted prior to maturity that Canso Oil Producers Ltd. would be primarily liable for the payment of the Debentures. On February 12, 1957, in consideration for the cancellation by Canso Oil Producers Ltd. of a one million dollar note given by Canada Southern Petroleum Ltd. to Canso Oil Producers Ltd. pursuant to the terms of the said plan of reorganization, Canada Southern Petroleum Ltd. agreed to issue Voting Trust Certificates representing 200,000 shares of its capital stock. These Voting Trust Certificates are to be made available to the extent necessary to provide any additional Voting Trust Certificates of Canada Southern Petroleum Ltd. required on an exchange of debentures pursuant to this notice in excess of the number of Voting Trust Certificates that Canada Southern Petroleum Ltd. would be obligated to provide on the conversion of the debentures under the terms of the Trust Deed. In the event all of the debentures are exchanged pursuant to this offer voting trust certificates representing 197,672 of the foregoing 200,000 shares of Canada Southern Petroleum Ltd. will be issued to the debentureholders and the balance will be issued to Canso Oil Producers Ltd.

Pursuant to an agreement dated the 3rd day of June, 1957 between Canso Oil Producers Ltd., Canso Natural Gas Ltd. and Canada Southern Petroleum Ltd., Canso Oil Producers Ltd. agreed to pay to Canso Natural Gas Ltd. the sum of $1.72 for each additional Voting Trust Certificate that Canso Natural Gas Ltd. issues upon exchange of debentures pursuant to this notice in excess of the number of Voting Trust Certificates that Canso Natural Gas Ltd. would be obligated to provide on the conversion of the Debentures under the terms of the Trust Deed, such payment to be represented by a non-interest-bearing note to be given by Canso Oil Producers Ltd. to Canso Natural Gas Ltd., maturing on October 1, 1961.

If 75% or more of the presently outstanding Debentures are deposited for conversion prior to the close of business on July 12, 1957 the companies will be obligated to issue and deliver the Voting Trust Certificates to which holders of Debentures so deposited are entitled under the terms of this notice, as soon as possible after said date. Should a lesser percentage be deposited, they may be accepted for exchange upon the same basis if in the sole discretion of Canso Oil Producers Ltd. it considers it advisable so to do.

In the event that any of the Debentures deposited are accepted for exchange as aforesaid the companies will grant to the holders of its purchase warrants and to the holders of the option to purchase shares in the companies granted to Catawba Corporation and dated January 2, 1952, for a six months period commencing January 1, 1958, the right to purchase under the said warrants and option, for each share of Canada Southern Oils, Ltd. which could formerly be purchased, a unit consisting of one share of Canada Southern Petroleum Ltd., one-half share of Canso Oil Producers Ltd. and five-eighths share of Canso Natural Gas Ltd. for a price of $7.85. Of such purchase price Canada Southern Petroleum Ltd. will be entitled to receive the same consideration as it would be entitled to receive at the time of purchase under the terms and conditions of the said warrants and option. The balance of such purchase price will be divided between Canso Oil Producers Ltd. and Canso Natural Gas Ltd. so that for each share issued each company will receive approximately the same percentage of the market value of its stock on the date of this notice.

The holders of the aforesaid option granted to Catawba Corporation have agreed, provided that the holders of 75% or more of the presently outstanding debentures have deposited same pursuant to the terms of this notice, to make a payment to the Companies on or before July 15, 1957 of $251,200 in the exercise of 32,000 of such units at the price of $7.85. Delivery to the purchasers of Voting Trust Certificates representing shares of the Companies pursuant to such exercise will be delayed until January 1, 1958.

Holders of Debentures actually exchanged pursuant to the terms hereof shall be entitled to no interest thereon accrued after April 1, 1957.

Canadian Debentureholders desiring to exercise the above described privilege of exchange shall, prior to the close of business on July 12, 1957, deliver their Debentures to any of the offices of Gairdner & Company Limited or the Montreal Trust Company at its principal office in Halifax, Montreal, Toronto, Winnipeg, Calgary or Vancouver together with a letter of transmittal, in the form approved by the Companies, correctly filled out.

Approved form of Letter of Transmittal may be obtained at or by writing to any of the aforesaid offices of Gairdner & Company Limited or the Montreal Trust Company.

Dated this 12th day of June, 1957.

CANSO OIL PRODUCERS LTD.
By John T. Sinclair, Jr., President
CANSO NATURAL GAS LTD.
By Benjamin W. Heath, President
CANADA SOUTHERN PETROLEUM LTD.
By John W. Buckley, President

Company Reports

Wood Products

LIVINGSTON WOOD MANUFACTURING LTD., Tillsonburg, Ont., net profit of $101,052 for year ended April 30, 1957, was 15% lower than previous fiscal year's $118,641.

INCOME ACCOUNT

Years Ended Apr. 30:	1957	1956
Gross profit	$555,389	$631,014
Less: Sell. & deliv. exp.	212,466	223,353
Gen. & adm. exp.	160,129	131,030
Add: Misc. rec.	.....	83,319
Net revenue	182,794	359,950
Less: Deprec.	▲	121,777
Bond int.	▲	25,673
Inc. tax	$1,722	96,459
Net profit	181,072	118,641
Less: Dividends	10,500	10,500
Surplus	90,532	108,141
‡Preliminary figures. ▲Not stated.		
Times Bond Interest Earned:		
Before deprec.	....	14.12
After deprec.	....	9.38
Shares o/s at Apr. 30:		
6% Cum. pref.	3,500	3,500
Common, n.p.v.	105,000	105,000

CONDENSED BALANCE SHEET

As at Apr. 30:	1957	1956
Cash	$305	$500
Accts., etc., rec.	491,490	505,174
C.s.v., life insur.	13,497	12,343
Invent.	530,278	372,594
Total curr. assets	1,036,160	890,611
Prepd. exp.‡	37,477	36,254
Misc. assets	60,230	62,253
Fixed assets*	932,811	873,900
Mort. rec.	.....	45,900
Total assets	2,066,678	1,909,018
Due bank	256,163	335,846
Accts., etc., pay.	543,900	368,699
Bonds due	13,000	13,000
S.f. res.	27,305	21,931
Tax res.	61,722	71,450
Total curr. liab.	896,115	809,926
Funded debt	415,195	448,569
Capital stock	481,700	460,750
Surplus	272,618	189,773
*After deprec. of	651,008	541,003
‡Incl. in curr. assets in co.'s report.		
Working capital	140,045	80,685

Leather

HUMBERSTONE SHOE CO., Port Colborne, Ont., net profit of $19,473 for year ended July 31, 1956, was 7.2 times previous fiscal year's $2,693.

Improvement in profit reflects measures taken to improve plant efficiency and product quality, says General Manager Harry V. Clark.

Full dividends of $5,500 were received from company's investment in preferred shares of Almer Co. Last year's income included a profit of $19,550 from sale of Humberstone's investment in Welfpack Co.

INCOME ACCOUNT

Years Ended July 31:	1956	1955
Net earnings	$41,343	$13,318
Less: Depr.	15,791	11,393
Income tax	6,234	1,262
Net profit	19,473	2,693
Less: Dividends	25,000	.....
Surplus for year	*5,527	2,693
*Loss or deficit.		
‡Company's report includes $19,950 profit on sale of investments in 1955 and $785 profit on disposal of f.a. in 1956.		
Earnings per Share and Dividend Record:		
Common	$0.97	$0.13
Paid	1.25	nil
Shares o/s at July 31:		
Common, n.p.v.	20,000	20,000

CONDENSED BALANCE SHEET

As at July 31:	1956	1955
Cash	$25	$25
Accts., etc., rec. less res.	322,827	325,329
Life insur., c.s.v.	63,341	60,856
Inventories	614,501	542,709
Total curr. assets	1,000,794	949,519
Def. charges	22,196	26,093
Shs. in other cos.	100,000	100,000
Fixed assets*	174,117	126,038
Total assets	1,296,907	1,203,637
Due banks	352,480	271,235
Accts., tax., etc., pay.	131,721	104,363
Total curr. liab.	484,201	376,098
Capital stock	229,422	229,422
Capital surplus	49,913	49,913
Earned surplus	443,432	448,199
*After deprec. of	260,644	254,339
‡Included in curr. assets in co.'s report.		
Working capital	516,523	573,421

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What Do Tariff Decisions Mean?

Suggested Tariff Schedule Reflects Steel Prosperity

OTTAWA (Staff)—The largely new schedule the Tariff Board has proposed for steel producers and users generally reflects the prosperous position of the producers.

But changes are both up and down.

Up: Structural and pipe steels.

Down: Plates, hot- and cold-rolled sheets and strips.

Most changes, according to the Board, "should mean serious injury to none and greater fairness to all."

What is immediately apparent is the greater simplicity of the new schedule. Classifications have been reduced in number to about one-third, and terminology has been brought up-to-date.

The recommendations now await study by the incoming minister of finance.

He will have to decide whether he agrees with the recommendations, make his changes if any, re-negotiate many of the items which are bound by the General Agreement on Tariffs and Trade at the next GATT conference in a few months.

Ratification of GATT commitments must be made by Parliament before such rates in the old schedule are replaced.

In its study, the Board found:

1. Canadian steel is relatively cheap, as it is world-wide.
2. Tariff protection for steelmakers has been low on primary forms in relation to those on other Canadian-made goods.
3. The tariff rate has been ineffective often by the exemption of scores of "end-use" items (farm implements, ships, cars).
4. The steel industry has been depending in general not so much on tariff protection as on its location—near the heart of the Canadian industrial economy, closer, nearly always, than U.S. and U.K. competition.

Among the Board's key recommendations:

- An end to special rates for "end-use" items except where steel is used for cutlery, files and where hot-rolled hexagon bars of iron or steel are used in the manufacture of cold-rolled or cold-drawn bars of iron or steel.

Cutlery gets a 99% drawback, the others 60%.

- There will be four steel products: plate, structurals, bars, and sheet and strip—and that the rates on all be the same until further processing creates legitimate differences.

—Rates will be 5% British Preferential, 10% Most Favored Nation and 20% General tariff for the main item of each of the four. The Board has decided this set of rates is "not significantly above nor significantly below" the average of the past schedule.

—These rates will (a) apply to all users of the same steel and (b) will be effective rather than nominal or paper rates.

- A hike in tariff on structural steels. This will benefit **Algoma**, our sole producer of heavy structurals.

Most heavy structurals have been coming in at Free BP and 2.5% MFN or 3% BP and 5.6% MFN.

Recommended rate: 5% BP and 10% MFN.

The steel industry (with Algoma among the giants: **Steel Co. of Canada, Dominion Foundries & Steel, Dominion Steel & Coal,** and **Atlas Steels**) had asked for 10% BP and 15% MFN.

- A decrease on plates, most come from the U.S. (MFN). Most plates came in at Free BP and 12.5% MFN. Recommendation: 5% BP and 10% MFN. Asked: 10% BP and 15% MFN.
- A decrease in hot-rolled sheet or strip. Most came in at Free BP and 12.5% MFN. Recommendation: 5% BP and 10% MFN. Asked: 10% BP and 15% MFN.
- A decrease in cold-rolled sheet and strip. Most came in at 7.5% BP and 20% MFN. Recommendations: 5% BP and 15% MFN. Asked: 12.5% BP and 17.5% MFN.
- A decrease in hot-rolled bars. Most came in at 10% BP and 20% MFN. Recommendation: 5% BP and 10% MFN. Asked: 10% BP and 15% MFN.
- An increase on steel for pipes. This is sometimes called "skelp" by the industry, is essentially hot-rolled sheet or plate.

Most came in at Free BP, and 5% MFN from the U.S. for pipelines.

The Board makes the recommendation of Free BP and 10% MFN to put pipe material on a par with other hot-rolled products.

Here's What Tariff Board Said on Iron-Steel Items

OTTAWA (Staff)—Here's what the Tariff Board recommended to the Minister of Finance in the way of up-dating the customs tariff applying to the iron and steel industry.

Included are new definitions, the new rates, the new categories, and a digest of some of the Board's comments.

The Board took 113 of the existing tariff classifications.

It put aside 21 of these on the ground they didn't need revision or weren't germane to the investigation. These are 385a ex, 386(g) ex, 386(h)ex, 387b, 388d, 392, 392b, 392e, 394(a), 394(b), 394(c), ex 4101, 440f, 441c, 442, 442b, 442c, 458, 848(4), 1028 and 1058.

The Board then reduced the existing 92 items to 39 including drawback items. These 39 are numbered 1 to 14 as a temporary measure (several have lettered sub-categories). And included in the 39 are three re-worded drawback items with their present number: 1005, 1009 and 1023.

The Board recommended these new definitions of steel, plate, sheet and strip:

Steel: Means any metal or combination of metals containing 50% or more by weight of iron.

Plate: When applied to iron or steel means a flat-rolled product of any shape, of the following dimensions: more than eight in. but not more than 48 in. in width and 0.2300 in. or more in thickness; more than 48 in. in width and 0.18 in. or more in thickness.

Sheet: Means a flat-rolled product of any shape more than 12 in. but not more than 48 in. in width and 0.2299 in. or less in thickness; more than 48 in. in width and 0.1799 in. or less in thickness.

Strip: Means a flat-rolled product of any shape more than eight in. but not more than 12 in. in width and 0.2299 in. or less in thickness; eight in. or less in width and 0.2030 in. or less in thickness.

Recommendations

New recommendations:

1. (a) Pig iron . . . per ton, $1.50 British preferential tariff, $2.50 Most Favored Nation, and $5 General.

This replaced 374.

(b) Sponge iron, free, free and free.

No change.

2. (a) Ingots or iron or steel, n.o.p. per ton free, $3 and $5. Replaces 377 and parts of 377a, 377b and 377c, and ups General from MFN rate.

(b) Ingots of iron or steel, round, corrugated, weighing not less than 30,000 lb. . . . free, free and 5%.

Allows free entry of ingots of sizes not made in Canada.

3. Iron or steel, semi-finished (blooms, slabs, billets or sheet bars): (a) For pressing or rolling into bars per ton . . . free, $3 and $5. Continuance of 377b (free, free, 5%).

(b) For processing other than into bars . . . free, 5% and 10%.

Covers forms (billets) which have come in under such as 377a, 377c, 377d, 377e, and 378 (a) to (d). B.P. has been free, and MFN from 3% to 4%.

4. Shapes or sections or iron or steel not further manufactured than hot-cold-rolled:

(a) Angles, beams, channels, tees, zees, or other shapes or sections, n.o.p. . . . 5%, 10% and 20%.

Items now come in under 388, 388a to c, 388e and 395. New rates will give a little more protection to makers here of larger sizes.

(b) Wide-flange beams more than 10 in. in depth per ton . . . free, $5 and $20. Not made in Canada and in short supply for building.

(c) Angles more than six in. in length or either leg; beams more than 18 in. in depth; channels more than 15 in. in depth; zees more than six in. in depth of any leg: all when not made in Canada . . . free, free and 10%.

Not Made Here

Not now made in Canada. When they are, they'll come in under another item. (d) Sash, casement or frame sections or iron or steel (etc.).

Item retained with same rates (free, $7 and $7) and wording.

5. (a) Bars or rods of iron or steel, hot-rolled, plain or deformed, viz: rounds, half-rounds, ovals, half-ovals, squares, round-cornered squares, hexagons, octagons or other multi-sided bars or rods; flats, 13/64 in. or more in thickness and eight in. or less in width . . . 5%, 10% and 20%.

Replaces bars provision under 377e and f.378 (a) and (d), and 379 (a), (b), (c) and (e).

Intention is to eliminate many end-use items and help producer know his protection.

(b) Bars or rods of iron or steel, as described in sub-item (a)

(Continued on page 15)

Bowater To Buy Paper Box Firm

MONTREAL (Staff) — More than 90% of the ordinary shareholders of **Hunt Partners Ltd.**, England, have accepted the recent offer of **Bowater Paper Corp.**

The offer was on the basis of one ordinary share, £1 par of Bowater Paper Corp. and 2s 6d in cash for every two ordinary shares, 5s par of Hunt Partners which has an efficient, modern carton unit.

Bowater said its entry into the carton field was a necessary adjunct to its existing packaging activities. Hunt produces folding cartons and rigid boxes.

With acceptance by more than 90% of Hunt shareholders, the offer will become unconditional upon granting by the Council of the London Stock Exchange of permission to deal in and give quotations for the new ordinary shares of Bowater Corp. to be issued pursuant to the offer.

As a result of more competitive conditions in the trade and lower profit margins, annual report of Hunt for year ended March 31, 1957, will disclose profits, subject only to taxation, of about £75,000 compared with £110,572 for the previous year, company reported earlier.

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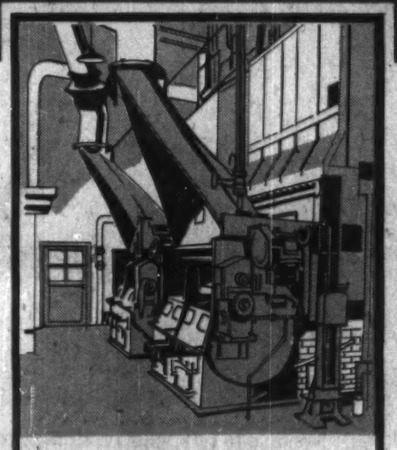
FIRE — CASUALTY — LIFE

Victory Soya Mills Limited, Toronto



Plant Engineer checked Victory Mills' figures at right.

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Signed

R. G. Loftus

R. G. Loftus
Vice-President of Manufacturing
Victory Soya Mills Limited

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Victory Switched to Coal to save $110,000.00 per year

When Victory Soya Mills—the largest vegetable oil-processing plant in Canada—expanded their plant they required additional steam capacity so Victory's Board decided to enlarge and modernize power facilities. For years past oil had been used.

After exhaustive cost analysis of all fuels available Victory's own engineering department found that coal cost approximately 40% less than oil or gas and their final decision called for burning coal the modern way with a projected saving of $110,000.00 per year.

Today a modern 50,000 lb. per hour, stoker-fired boiler provides 80% of all steam used: when the change-over to coal is completed the savings will be $110,000.00 per year in comparison to using oil or gas. The continuous discharge spreader-stoker with dust collector, economizer and other auxiliary equipment not only cuts labour costs but simplifies coal and ash-handling plus eliminating smoke and dust problems.

If you are planning the construction of new heating or power facilities—or the remodelling of an existing installation—your consulting engineers and architects will work closely with your own engineering department to show you how up-to-date coal burning equipment can give you 10% to 40% more steam per dollar . . . as proven by Victory Soya Mills Limited.

For further information or additional case histories showing how other plants have saved money burning coal the modern way, write to Bituminous Coal Institute of Canada at 32 Front Street West, Toronto.

BCi BITUMINOUS COAL INSTITUTE OF CANADA

Where costs count . . . Coal is the fuel

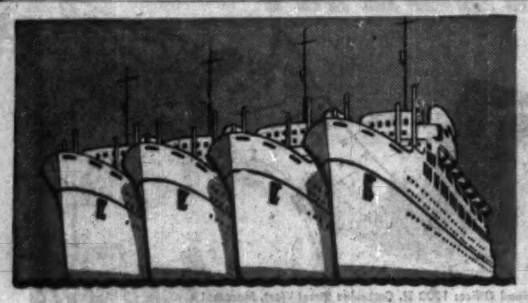
ANNOUNCEMENT

MISS HELEN HOLDEN

Since the death of her father, pioneer William Holden, in 1947, Miss Holden has been manageress of the ten-story Holden Building located in downtown Vancouver. Miss Holden, who attended Havergal College, Toronto, is a member of the Building Managers Association.

GENERAL DYNAMICS CORP. had 7,958,169 common shares outstanding at May 31.

BRITISH AMERICAN OIL CO. had 10,109,810 common shares outstanding at May 31.



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Aug.	6	*Empress of Scotland
Aug.	8	Empress of France

*calls at Greenock

SEE YOUR TRAVEL AGENT, or any Canadian Pacific office.

Canadian Pacific

Here's What Tariff Board Said on Iron-Steel Items

(Continued from page 14)

of this item, cold-rolled or cold drawn . . . 5%, 15% and 25%.

(c) Bars or rods of iron or steel, as described in sub-item (a) of this item, further processed than hot- or cold-rolled or cold-drawn, or otherwise processed . . . 5%, 15% and 25%.

(d) Rods or iron or steel, in the coil, not more than .375 in. in diameter, when imported by manufacturers of wire for use exclusively in the manufacturing of wire in their own factories . . . per ton, free, $3 and $5.

Protects wire makers who can't now get enough from their suppliers-competitors.

6. (a) Plates of iron or steel, not further manufactured than hot- or cold-rolled and whether or not coated, coiled, or with rolled surface pattern . . . 5%, 10% and 20%.

Shouldn't hurt present end-use beneficiaries because rates are a compromise of present varying ones.

(b) Plates of iron or steel, flanged or dished per ton . . . $5, $8 and $15.

(c) Plates of iron or steel, n.o.p. . . . 5%, 15% and 25%.

7. Sheet or strip of iron or steel, corrugated or not, and whether or not with rolled surface pattern—

—(a) Hot-rolled . . . 5%, 10% and 20%.

This will greatly simplify the tariff, do away with many end-use items. Rates are a compromise.

(b) Cold-rolled or drawn . . . 5%, 15% and 25%.

(c) Coated with tin or vitreous enamel . . . 10%, 15% and 25%.

(d) Coated with zinc . . . 7.5%, 15% and 25%.

(e) Coated, n.o.p. . . . free, 10% and 20%.

(f) Hot- or cold-rolled, when imported by manufacturers of butts and hinges for use exclusively in the manufacture of butts and hinges in their own factories . . . free, 7.5% and 10%.

(g) Hot- or cold-rolled not more than .025 in. in thickness, containing not less than 2.9% of silicon, coated or not, for use in the manufacture of electrical apparatus or parts therefor . . . free, free and 12.5%.

8. (a) Plate, sheet or strip of iron or steel, not tempered or ground, nor further manufactured than cut to shape, without indented edges, when imported for use exclusively in the manufacture of saws . . . free, free and 10%.

(b) Plate, sheet or strip of iron or steel, hardened, tempered or ground, not further manufactured than cut to shape, without indented edges, when imported for use exclusively in the manufacture of saws . . . free, 7.5% and 15%.

9. Sheet or strip of iron or steel, coated with lead or with an alloy of lead and tin . . . free, free and 15%.

10. Strip of iron or steel, hot- or cold-rolled, less than 4 in. in width, with rolled or milled edges, coated or not . . . free, free and 15%.

11. Plates, sheet or strip of iron or steel, hot- or cold-rolled, when imported by manufacturers of pipes or tubes, for use exclusively in the manufacture of pipes or tubes . . . free, 10% and 15%.

This is the basic raw material of the pipe and tube industry, and a hike in tariff.

12. Plate or sheet of iron or steel, rolled from ingots, blooms or slabs of Canadian origin, when imported by the manufacturer of the said ingots, blooms or slabs . . . free, free, 20%.

13. (a) Railway rails of iron or steel, of any weight, or for any purpose, punched, drilled, or not . . . 5%, 10% and 20%.

No Difference

Rolling rails isn't different from rolling plate or structurals, essentially.

(b) Fish plates, splice bars, rail joints, tie plates, of iron or steel per ton . . . $5, $7 and $8.

(c) Rails (track) of iron or steel, other than railway rails, further manufactured than hot-rolled, with other sections, arched or not, welded thereto or not . . . free, 12.5% and 35%.

Same as 388g.

14. Forgings of iron or steel, hollow, rough-machined or not, not less than 12 in. in internal diameter; all other forgings, solid or otherwise, rough-turned or rough-machined or not, of a weight of 20 tons or more . . . 5%, 20% and 30%.

Metal alloy item:

355b. Metal alloy strip or tubing—not being such strip or tubing as accords with the definition of steel . . . —containing not less than 30% by weight of nickel and 12% by weight of chromium, for use in Canadian manufactures . . . free, free and 20%.

Drawback items:

1005. Steel when used in the manufacture of cutlery . . . 99%.

1009. Steel when used in the manufacture of files . . . 60%.

1023. Hot-rolled hexagon bars of iron or steel when used in the manufacture of cold-rolled or cold-drawn bars of iron or steel . . . 60%.

Pipes, Tubes Most Vital Tariff Change

OTTAWA (Staff) — Most important of the new classifications recommended by the Tariff Board for pipes and tubes is 3 (a). Here is why:

Until now, most of this has come in under two categories: one is 397 (a) which is less than 10.5 in. in diameter and at a rate of 12½% BP, 22.5% MFN and 30% General; and the other is 397 (b) which is more than 10.5 in. in diameter and has a rate of 10% BP, 15% MFN and 20% General.

If the recommendations are accepted, material will come in under 3 (a)'s 12.5% BP, 22.5% MFN and 30% General.

Both now produce small sizes of pipe and tubing (and so temporarily may lose 5% from the proposed skelp tariff hike) but are expected to produce much larger products and gain 2.5% to 10%. Similarly, production of larger pipe will mean a gain of 2.5% on the BP rate, instead of a 2.5% loss because of production of small pipe.

The Tariff Board was warned by pipe users that increases such as these would probably increase cost of gas transmission and raise the price to the consumer.

Objectors included **Dominion Natural Gas Co.** and **Lakeland Natural Gas** both of which are or will be distributing gas in Ontario.

But a large increase is not probable. There's a 50% drawback item for gas transmission lines in the recommendations.

Postpone Nfld. Finance Probe Sitting

ST. JOHN'S — Chairman of the Royal Commission on Newfoundland Finance, Chief Justice John B. McNair of New Brunswick, has announced the opening sitting of the commission has been postponed temporarily.

Speculation now is that the sessions will be held sometime in the middle of July.

The hearing was originally scheduled to take place in St. John's on Wednesday, June 19. Postponement was decided by the members of the commission to permit final arrangements by the parties concerned.

The Royal Commission was provided in the terms of Newfoundland's union with Canada in 1949.

Confederation agreements specified that a commission be appointed after eight years to study the new province's financial status in light of grants provided.

The commission was also to study the possibility of added grants that might be needed to give Newfoundland financial status comparable to her sister provinces in the Atlantic region.

With Judge McNair on the commission are Sir Albert Walsh, Chief Justice of Newfoundland, and John J. Deutsch of Vancouver.

Premier J. R. Smallwood said he is to testify before the federal commission but is unable to do so in the immediate future. He added, however, that the postponement is merely temporary.

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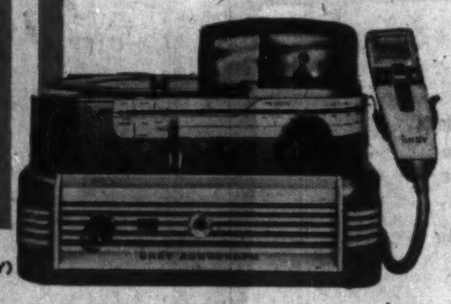

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Heat Wave Hits Ontario Auto Sales

Some of the early year steam has gone out of new car sales.

Result: Sales for the first half of 1957 are unofficially ahead of last year but they're fast losing ground.

Reasons: Tight money conditions, Eastern Canada's heat wave and 1958-car talk.

However, it still looks like a good sales year (FP, May 4), perhaps might exceed 1956's record 407,090.

Estimated first half sales figures of 229,000 new cars (worth $665 million) are expected to match last year's.

April sales figures, compared with last year skidded 7% to 46,000 and the drop in May is expected to be even more but still chalk sales for the first five months at 183,000, slightly higher than last year.

The first four months, with sales topping 137,000, up more than 8% over last year, sparked high hopes for a 400,000-plus year.

However, sales slumped in May, and the first two weeks of June has produced only "spurts."

Said a Toronto car dealer, one of the biggest in Canada:

"People aren't interested in buying cars in a heat wave."

Result: Sales this week have hit rock bottom.

Truck sales in the first six months are expected to at least equal last year's 46,000. April truck figures bounded ahead over 9,000, up 4%.

That would bring the total for all vehicles to something like 275,000, neck-and-neck for the half-year.

The second half, particularly the fourth quarter, is expected to be slightly better than average.

MR. JEWETT MR. CAPE MR. JEHU

Dominion Bridge Co. Research Amalgamates Under New Head

Dominion Bridge Co. has decided to amalgamate all its research departments into one under the directorship of W. D. Jewett, formerly the firm's export manager.

This will also include the field of commercial research. The company has had extensive research program and it's with this in mind the firm decided to co-ordinate all departments.

All major research was previously carried out at the company's industrial engineering department at the main plant in Montreal. Branch plants also did some research.

Research engineer in charge at the Montreal plant is Gordon Cape. He has been named to take over as manager of technical research.

Succeeding Mr. Cape is Llewellyn Jehu, who will become welding and research engineer.

Here's Statistical Base Of Professor Shortage

OTTAWA (Staff) — Here is the basis of the prediction by the Canadian Association of University Teachers that Canada faces a growing shortage of professors.

—Based on the Sheffield prediction of university enrolments (which says they'll double by 1965), 9,725 teachers will be needed.

—At present, 5,970 are teaching; thus, an additional 3,755 will be necessary to take care of planned expansion.

—Based on a calculation worked out by Dr. E. P. Gendron, dean of science, University of Ottawa, 25% or 1,490 of the present 5,970 will retire or die.

—The total number of new men needed in the field will be 3,755 plus 1,490, or 5,245.

The number of Ph.D.s which Canadian universities will produce from now to 1965 is worked out from a "trend line" based on graduate enrolment in the past.

Number of Grads

The number of graduate students is known for many years back. In the past 10% of graduate students have been awarded Ph.D.s annually. Taking the trend line based on past graduate enrolments and projecting it to 1965, gives a total of about 48,000 graduate students; 10% of this gives an approximation of the Ph.D.s.

It takes seven or eight years of university study to obtain a Ph.D. which now is regarded as almost a "union card" for the university teacher.

Said a CAUT statement:

"For a generation or more, university teaching has been a depressed profession without status in the community or adequate financial return.

"The result is that in selecting a career, many of those highly trained young men and women who would be most acceptable to the university teaching profession give little consideration to it.

"We feel that this situation could be altered radically within a few years if the university teaching profession were made more attractive and a definite effort were made to recruit more of our own Ph.D.s to university work."

Supermarket Chain Sells Half Issue

Half of a new common stock issue of **Grand Union-Carroll's** supermarket chain in Canada is soon to be offered here.

Plans to sell an exact 50% on the Toronto Stock Exchange are currently being discussed with two investment houses.

This was announced this week by **Grand Union Co.'s** president, Lansing P. Shield. He predicted that the stock would be on sale during the course of this year — although the decision to offer it has only recently been made.

The announcement coincided with the news that Grand Union-Carroll's 37 Ontario stores are to be increased by at least another 10 by 1958.

Ground has been obtained for a $2 million distribution centre near Toronto and two more supermarkets are being opened in Toronto next week.

Grand Union's sales last year totaled $374 million, compared with $55 million in 1946. Sales this year are expected to reach $435 million.

No separate sales figures for the Canadian operation have been disclosed.

The company's expansion plans for Canada are to be confined to Ontario.

There is every likelihood that the Grand Union supermarkets will encourage the trend toward both automatic vending and the retailing of non-food items.

In one of the company's 89,000 sq. ft. stores in New Jersey 25,000 non-food items and only 6,000 food items are stocked. The policy is to sell such lines as appliances at discount-house rates.

Experiments in automatic vending 24 hours a day are now under way. It is probable that this scheme will be extended to Toronto within about 12 months.

Du Pont Computer Will Aid Research

MONTREAL (Staff)—**Du Pont** has become the first Canadian chemical company to install its own electronic computer.

An **IBM 650**, with additional magnetic tape memory units, is now in use in the company's Montreal offices.

Apart from its use for payroll and accounting, the computer is intended to provide management with day-to-day operating figures and to extend the amount and scope of both pure and applied research in the laboratory.

It will be linked with the company's research centre at Kingston, Ont.

Ford Riot Causes Insurance Firms To Take 'Second Look'

General insurance companies operating in Canada may be taking a second look at the "riot" clauses in their policies.

This is likely to be one result of a judgment just handed down by Mr. Justice G. A. Gale in Osgoode Hall.

In an 81-page ruling, it was decided that a "riot" did in fact exist at the **Ford Motor Co. of Canada** Windsor plant in December 1951 when workers, by intimidation, forced a shutdown of the company's powerhouse.

The judgment is considered to be the first major examination and interpretation of liability under insurance policy riot clauses.

Ford had entered two actions against 12 insurance companies claiming a total of $905,101.

What Ford will collect under the newly interpreted riot clauses and what the companies will not have to pay because of "temperature exemption" in the policies will be determined by the Master of the Supreme Court of Ontario.

Mr. Justice Gale listed these ingredients that make up a riot:

—Assembly of three or more persons.

—Existence of a common purpose.

—Execution or inception of that purpose.

—Intention to help one another by force if necessary against any person opposing them in the execution of that common purpose.

—Force or violence used not only to demolish property but displayed as to alarm at least one person of reasonable firmness and courage.

Since all these elements could be found in the Ford incident, it was ruled that a riot occurred.

CROWN ZELLERBACH CORP. on June 5 issued an additional 220 common shares under employees' stock option plan. Now 13,801,623 common shares outstanding.

HAS YOUR HUSBAND MADE HIS WILL ?

Most men realize the value of a Will. Unfortunately, many of them put off making one until it is too late. Make sure your husband protects you and your family by drawing up a Will now. Write or telephone, without obligation, for information:

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On June 20 . . . the Canadian shipping industry.

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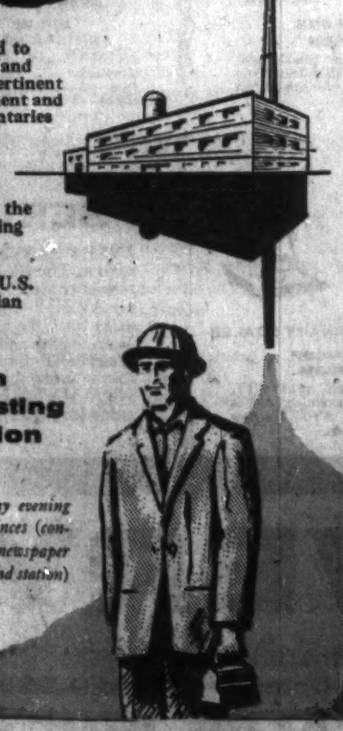

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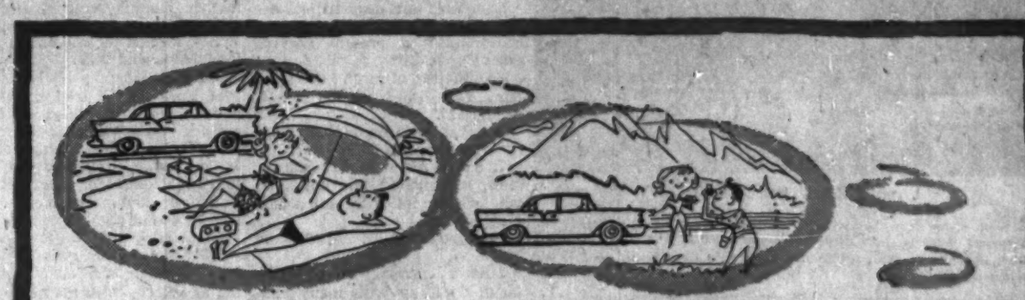

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That same spirit of dedication marks their modern successors, the Maritime Air Command. Today, when stakes are higher and potential enemy strengths far more devastating, MAC maintains a vigil that demands great courage, stamina and ability . . . watching over shipping . . . on the alert for submarines . . . always ready for search or rescue.

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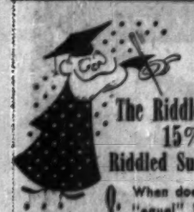

The Riddle of 15% Riddled Surfaces

Q. When does 15% "equal" 100%?

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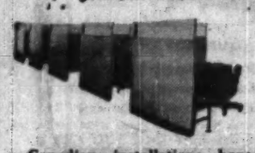
*(surface area, 15% perforations exposing acoustical spun glass core.)



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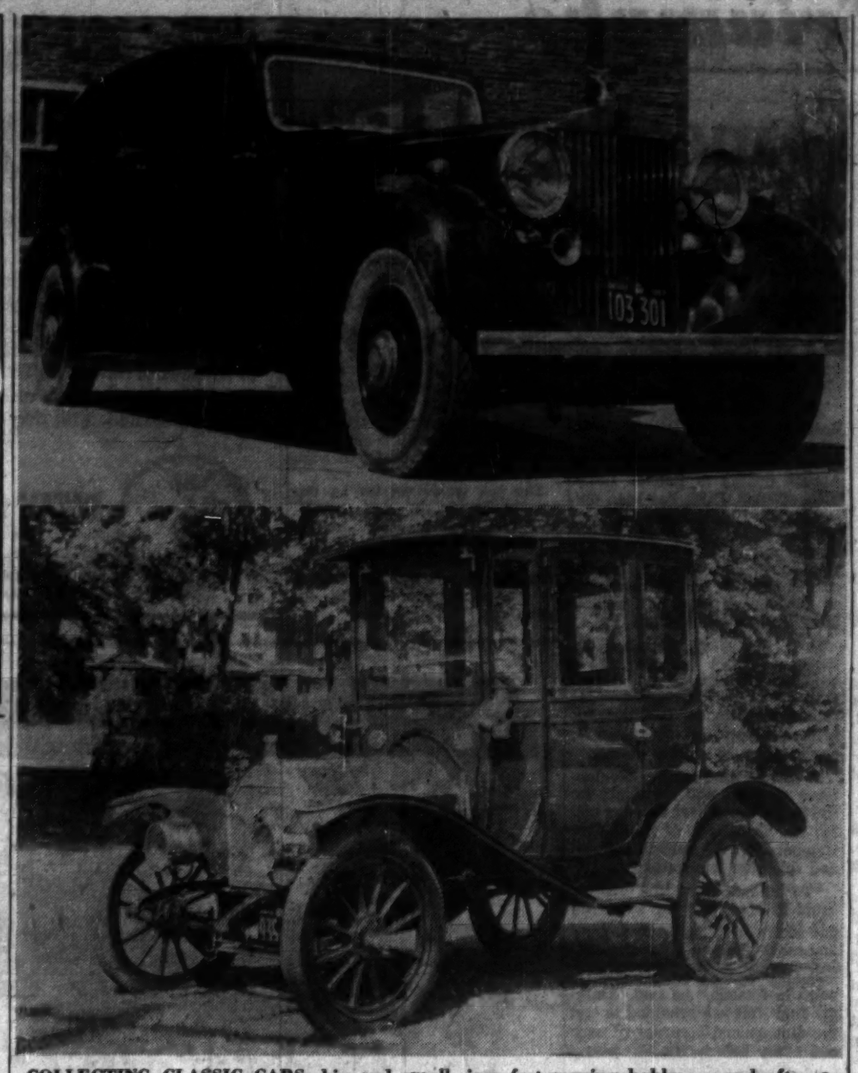

COLLECTING CLASSIC CARS, big and small, is a fast-growing hobby — and often a profitable one. Top is a 1937 Rolls-Royce Phantom III 12-cylinder sports saloon, biggest model RR ever built, owned by Vincent Egan of Toronto. Bottom is one of the only two 1911 Hupmobile coupes in existence; owner of this tiny antique is Neil Kennedy of Cobourg, Ont.

Old-Timers Hit Road Again In Race of 'Classic' Cars

By VINCENT EGAN

If you find yourself poking along a southern Ontario highway next week at 15 when you should be doing 50, don't lean on your horn.

Blame the delay on the greatest manifestation yet of a fast growing (but slow moving) hobby—antique cars. It's a hobby that's thriving on nostalgia, with a generous assist from the automobile industry.

Next Monday morning, 98 collectors in 44 antique cars will set out on Canada's first annual London to Brighton tour. Leaving the Western Fair Grounds at London, Ont., at 9 o'clock, they will cover the 220 miles to Brighton, Ont., in a leisurely three days.

The run is a representation of an event first held in England more than 50 years ago. Once a year some 200 cars, all built before 1914, journey from London to Brighton, 60 miles away.

They are celebrating the abolition of the law that made it necessary for a car to be preceded by a man on foot carrying a red flag.

Sponsors of the tour are the Ontario regions of the Antique Automobile Club of America, Horseless Carriage Club of America, and Veteran Motor Club of America.

Lending a hand will be **Firestone Tire & Rubber,** sending a tire service truck along, and **British American Oil,** which is supplying gas and oil. The touring drivers will be entertained at Ancaster by **Studebaker-Packard,** at Oakville by **Ford of Canada,** and at Oshawa by **General Motors of Canada.**

Vintage Beauty

What kind of people collect antique and classic cars?

Often, they are motorists who find that under-hood power, tail fins and chrome leave them cold. They find beauty in the functional, no-nonsense lines of vintage cars, pleasure in the ownership of something rare, and satisfaction in their individuality.

Restoring an antique provides the same sort of after-hours relaxation that many find in puttering around a garden, or a home workshop, says Herman Smith, a director of the AACA.

Smith's car is a 1931 Model A. As such, it is just within the North American definition of an antique—a car that is more than a quarter of a century old.

A classic, on the other hand, can be of more recent date. It is usually a car that was produced in small numbers and with loving care—as, for example, the Cord of about 1937, and Ford's Continental.

Profit in a Barn

Car collecting is hardly a poor man's pastime, and yet it is not necessarily expensive. Since it is what an investment analyst would term a growth hobby, there are opportunities for profit in buying and selling special-interest cars, just as there are in trading objets d'art.

Every collector hopes to find some rare car, forgotten and neglected in some abandoned barn or coach-house. The rest of the dream goes like this: Collector offers $50, owner jumps at the chance to get rid of the thing, collector restores it to mint condition and sells it for $3,000.

The trouble with the dream, however, is that most barns and coach-houses have by now been pretty well picked over. Yet the dream comes true often enough to keep it alive.

Not long ago, one of the great automotive rarities, a Stanley Steamer, was found in an unused barn. A tree had grown up in front of the barn's doors since the Steamer was last used. To get it out, its discoverer had to chop down the tree and dismantle the barn.

Perhaps the greatest threat to the continued growth of the movement in Canada is not the scarcity of undiscovered barns, but Canada's tariff regulations.

To protect the Canadian automobile industry from the dumping of used cars from the U. S., Canadian law requires that a special act of Parliament be passed before a used car may be imported. Even then, the duty is prohibitive—it works out to about 25% of the original price of the car.

In contrast, the U. S. imposes a duty of only 10% of the most recent price of the car. The trend, therefore, is for Canadian antiques and classics to filter southward into the hands of American collectors, with no parallel movement northward.

Oldest of the antiques entered in next week's London to Brighton tour is a 1902 Holsman, to be driven by its New York owner. Perhaps the smallest is Neil Kennedy's 1911 Hupmobile, one of the only two examples of that model known to be in existence. The tour party will also include an antique truck, a 1918 Ford Model T driven by President Murray Scott of **Scott Transport,** Oakville.

How in the world . . . do you insure a pipeline system?

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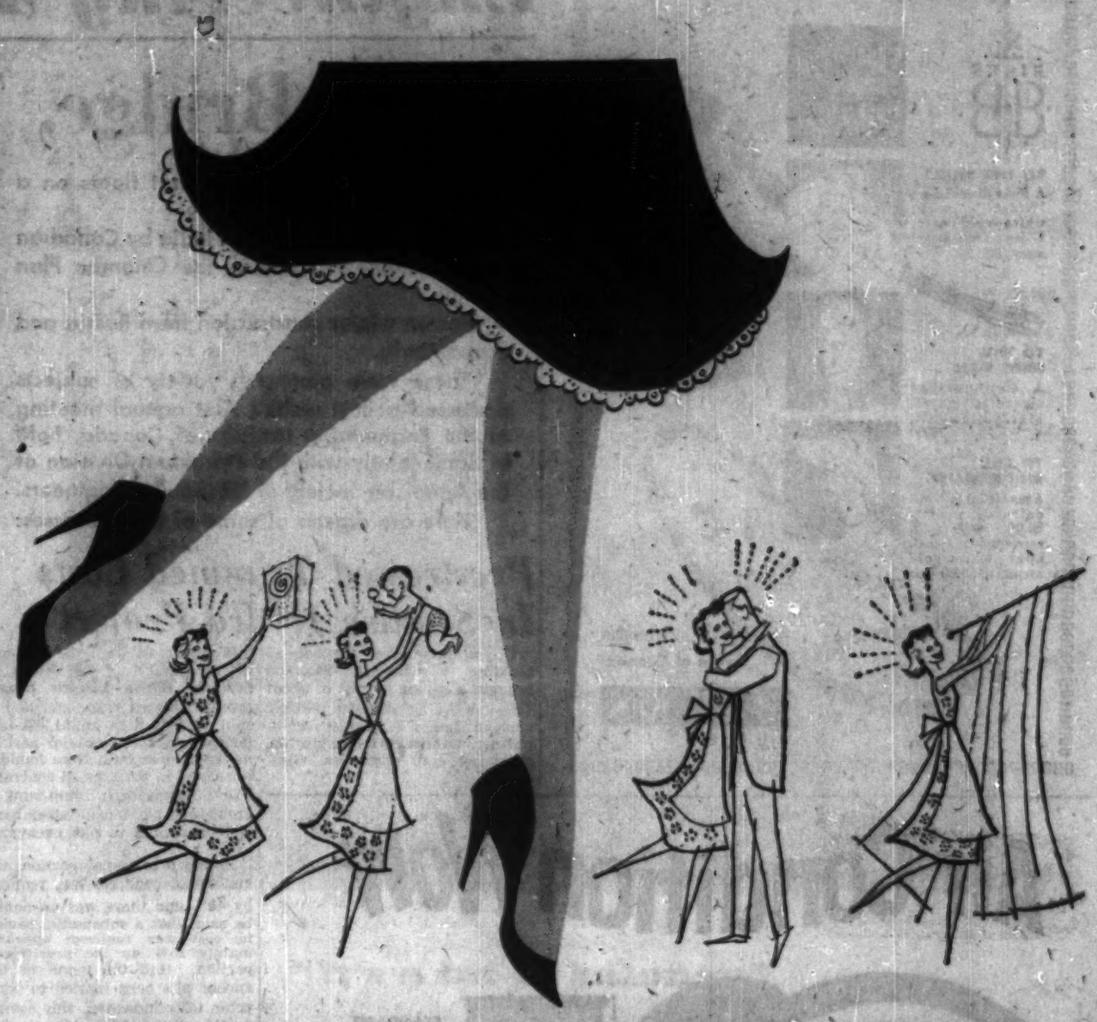

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Chatelaine

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FEAR CAN MAKE OR BREAK YOUR MARRIAGE, by Dr. William Blatz
A DAY WITH SIOBHAN McKENNA AT STRATFORD, by June Callwood

FOOD
TREAT OF THE SEASON; SUMMER FRUITS AND VEGETABLES,
CHATELAINE MEALS OF THE MONTH

FASHION AND BEAUTY
SHE DRESSES ON $1 A DAY by Vivian Wilcox
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BIRKS JEWELLERS

Engineering Triumphs

Float Bridge, Tame the Atom

- A push-button lift bridge that floats on a B. C. lake.
- Problems being licked in India by Canadian atomic engineers building the Colombo Plan reactor.
- Tips on winter construction from Russia and Scandinavia.

These were among a variety of subjects discussed at last week's 71st annual meeting of the Engineering Institute of Canada, held in Banff jointly with the Petroleum Division of the American Society of Mechanical Engineers.

Here are digests of some of the addresses:

Prestressed Trimmed Costs In Scottish Hydro Project

Use of prestressed concrete in building a dam in Scotland brought a saving in cost of about 15% on the prestressed portion, claimed James A. Banks, senior partner, **Babtie, Shaw & Morton,** chartered civil engineers, Glasgow.

He explained that the Allt-na-Lairige project of the **North of Scotland Hydro-Electric Board,** completed last year, included a dam 73 feet high and 1,380 feet long which, for the major part of its length was built from foundation level in prestressed concrete. The tendons, each comprising a group of high tensile steel bars, were anchored in pits excavated in the rock.

In the prestressed portion, the volume of concrete was reduced by 40% and there was no doubt, he said, that a substantial saving in cost was realized, approximately 15% on the prestressed portion. Had the depth of the anchor pits been limited to what prior tests indicated, this saving would have been about 3% higher.

"What the relative position would have been had the same dam been constructed in Canada cannot of course be assessed with the same certainty," warned Banks.

Atomists Lick New Problem Build Canada-India Reactor

Canadian scientists and engineers are licking unusual problems in an atomic reactor project on a site where maximum temperature exceeds 80 deg. F. for 357 days of the year.

The reactor is being built near Bombay as a joint Canada-India enterprise under the Colombo Plan, and its design is based on **Atomic Energy of Canada Ltd.'s** NRX reactor which has been operating at Chalk River for the past ten years. The design of the rest of the project has been developed to suit the site and to permit erection and maintenance of the entire plant by skilled labor available in India.

F. J. Bleackley, Canada-India Reactor project manager, **Shawinigan Engineering Co.,** Montreal, explained the reactor is designed to provide facilities for research work on the peaceful applications of atomic energy.

It will be used for the development of fuels and materials for use in nuclear power reactors and for the production of radioactive isotopes for industrial, medical and scientific applications.

"To ensure that the reactor could be erected at the site without recourse to heavy machinery and other equipment for final adjustment, it is designed for preassembly at the manufacturer's plant in Canada," he said. "Dummy fuel rods are provided to test the dimensional accuracy of each and every hole in the assembly."

To protect the three million people in the adjacent area from radio-active gaseous fumes, in the event of the reactor being temporarily out of control, the units containing fissionable material will be housed in a pressure-tight ball-like steel shell 120 ft. diameter.

Sea water is used for cooling the reactor. The heavy water circulates in a closed circuit and is cooled directly by sea water in heat exchangers located in a shielded room. Fresh water circulates through the pile and transfers heat to the sea water through heat exchangers.

The sea water carries an unusually heavy silt load, particularly in the monsoon season. The water off the site is so shallow that the intake had to be three quarters of a mile off shore to secure sufficient depth for pumping.

Steel-Concrete Cuts Costs Speeds Job On New Bridges

Recent trend to steel-concrete construction in bridge and elevated expressways is probably the development of a practise known and used more than 70 years ago.

The past decade has seen an increasing number of such structures using composite action between steel beams and concrete slab bridge decks to achieve simplicity, harmony and economy. The construction procedures are no different from those common to ordinary beam and slab construction.

Robert David, district engineer, Canadian Institute of Steel Construction Inc., and G. G. Meyerhof, head of the Department of Civil Engineering, Nova Scotia Technical College, Halifax, told the conference that use of structural steel members working in conjunction with the surrounding concrete seems to have been used before ordinary reinforced concrete.

The Melan system of steel beam arches encased in concrete was used widely in Europe and the United States late in the nineteenth century. Lattice frameworks have been used in concrete since 1890 in France. In Canada tests on "steel beam and slab construction" were made at McGill University in 1923.

This work and other research in Europe had led to an interesting development. The sponsoring steel fabricator developed a system of composite construction known as the Kane System, the authors stated. It took the form of latticed beams and columns surrounded by concrete, but applied equally well to solid steel beams and columns in buildings and bridges.

Several large buildings and bridges of such construction were built in and around Montreal between 1934 and 1940. As a result, design methods were established and governing clauses were incorporated in the National Building Code of Canada (1941).

Prestressing of the steel beam is sometimes done in order to produce stresses of opposite sense to those expected during the application of loads. It may be done by shoring the middle third of the steel beam to some elevation higher than that of the end bearings and then forcing the beam ends back on the bearings. The concrete slab is then poured and cured before removing the shoring.

Although prestressing of the slab has also been done longitudinally and can result in some economy of material, the extra work involved always offsets this to some degree.

To withstand Canada's extreme climatic conditions, bituminous wearing surfaces should be applied, warned the authors. Steel stringers should be painted and not encased in concrete. Concrete never protects perfectly against corrosion, since cracks appear after a few years allowing access of air and moisture. Maintenance cost can be reduced by periodic inspection.

Composite construction is generally more economical for medium spans (above 40 ft.) and long spans, they observed. But composite design is often chosen for the sake of flexibility, rapidity of construction and the lack of shoring which permits free movement of traffic during construction.

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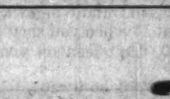

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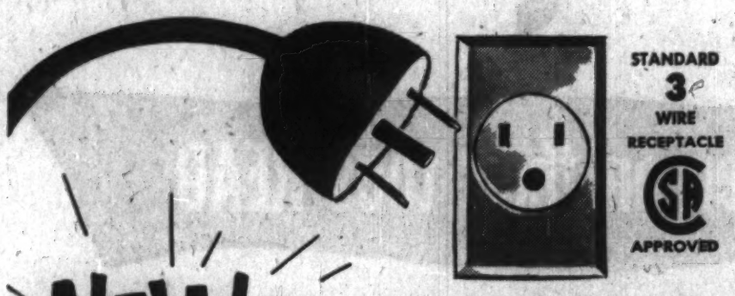

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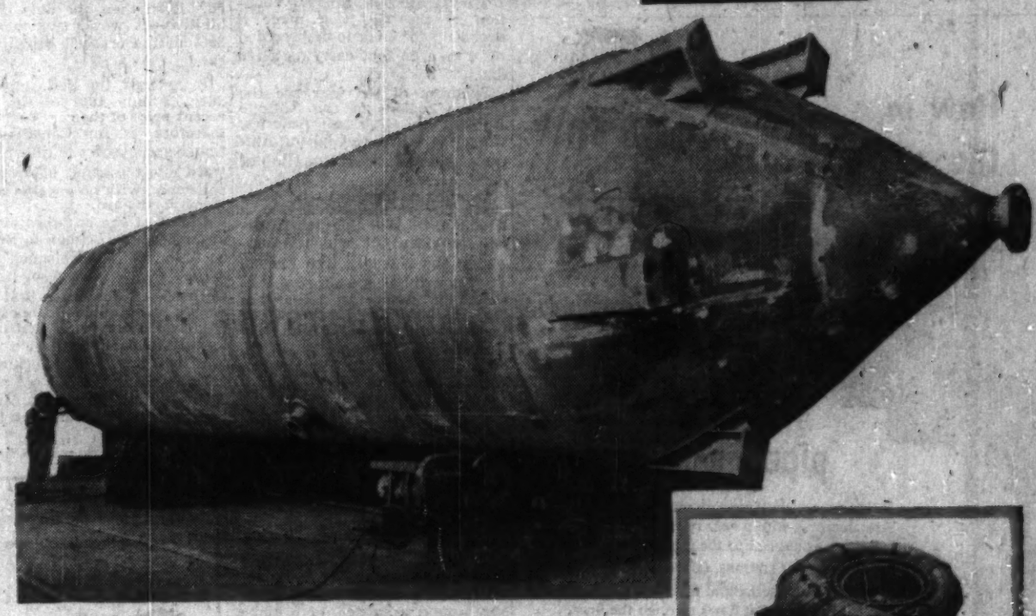

For more than 70 years Dominion Bridge has been a pioneer in platework design and fabrication for many diversified industries. A recent example is the Inconel-clad sulphate digester shown above — the first of its type made in Canada — now in operation at the Duncan Bay, B.C. mill of Crown-Zellerbach.

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Engineering Triumphs

Push Button Highway Bridge Floats Upon Okanagan Lake

Nearly half a mile of the new two-mile long, push-button highway bridge across Okanagan, Lake, B.C., now under construction, will be a floating section of reinforced concrete pontoons.

It is being built for **British Columbia Toll Highways & Bridges Authority** to replace the existing car ferry at Kelowna and is scheduled to open for traffic next year.

Describing the bridge to the conference, W. Pegusch, Jr. design engineer, **Swan, Wooster & Partners**, Vancouver, said it was at first proposed to cross the lake by means of a suspension bridge or using a rockfill causeway.

Subsurface investigations and studies of stability under wind pressure, however, indicated it would be impossible to build either due to unsatisfactory foundation materials.

Connected with the existing highway west of the lake by a mile-long approach road, is a 1,400 ft. long rockfill embankment from the west shore. A 175 ft. transition span connects the embankment with the 2,100 ft. long floating pontoon section, composed of 12 reinforced concrete pontoons 200 ft. long by 50 ft. wide and 15 ft. deep, rigidly connected and anchored by cables.

East of the pontoon section is another 175 ft. transition span to the west main pier, where a steel lift span and towers, 260 ft. in length, connect the west main pier with the east approach span. The lift span can be raised 45 ft. to give a vertical clearance of 60 ft. above high water for navigation.

The roadway will be 36 ft. in width with two sidewalks.

Operation is completely automatic, controlled by the operator from his station in the east tower just above the roadway. After he pushes the button that closes the traffic gate, all other operations follow automatically until the span is in the raised position. He again pushes the button to close the bridge and when his panel indicates the bridge is locked in the closed position he opens the traffic gate by pressing another button.

The approach roads and rockfill embankments were completed in the summer of 1956. Construction of the abutments, main piers and pontoons is now under way and the contract for the superstructure was awarded in April.

Completion is called for in the summer of 1958 subject to the availability of structural steel.

Consultant for the design is C. E. Andrew, of Seattle, designer of the Lake Washington Floating Bridge. Swan, Wooster and Partners are designing and supervising engineers for the whole project.

Russia May Have Cost Tips On Winter Building Woes

Canada may be able to pick up a few lessons from Russia in the drive to beat cost and other problems of winter construction.

C. R. Crocker, research officer, National Research Council, Ottawa told the conference: "Many new and interesting techniques have been developed in Russia in an attempt to bring the volume and cost of winter construction to the same level as summer construction."

He said that large quantities of calcium and sodium chloride are used in the USSR as accelerators to increase early strength of concrete placed in below-freezing weather.

The impermeability of this so-called "cold concrete" is higher than ordinary concrete but its durability is low. Since 1952 when it was first used, however, only small volumes have been placed in Russian retaining walls, secondary roads and foundations.

A system had also been developed for heating the surfaces of new concrete by electricity supplied by portable oil transformers. Six kilowatts per sq. yd. of exposed surface is the power capacity needed at sub-zero temperatures down to —20 deg. F.

"But in spite of these new materials and techniques, the big weapon used by the Russian engineers to combat winter conditions is prefabrication," he reported. "Even brick masonry is prefabricated into wall panels and columns, which are lifted by mobile cranes into place after curing. However, full scale winter construction still requires the same protection as given in Canada."

In Norway and Sweden building permits are issued by government at all three levels, but only after the contractor shows a timetable indicating the duration of work at each stage.

The permit system does not force him to build in the winter. It may prevent him from building in the summer however, thus meeting the immediate objective of avoiding the use of too much skilled labor in the busy summer season. Even so it is found almost impossible to avoid a 10% fluctuation between summer and winter construction employment.

There seems little doubt that Canada leads the world in the per capita volume of winter construction, the speaker stated. No country normally builds under such severe weather as is experienced in the prairie provinces. Ingenious methods such as enclosures made of 1 in. by 4 in. lumber and reinforced kraft paper and polythene film are used. The use of the lift-slab method seems well suited for winter work, though prefabrication has not been fully exploited.

"One out of every five dollars spent in Canada today on end goods and services is spent on construction," Crocker concluded. "Canada cannot afford to slow down appreciably so vital an industry as construction. The so-called "construction season" is a term that should be out-dated. Canada must build the year round."

Storm Sewer Tunnel Project Checked Up On Procedures

Tunnelling 50 ft. below ground level to build a half-mile long, five foot diameter storm sewer is an engineering job bristling with problems which vary according to a large number of factors.

Such a job was carried out in Saskatoon over the four-year period between 1951 and 1955 and a variety of procedures were used.

Discussing the pros and cons of the various methods, D. R. Graham, Saskatchewan waterworks engineer and N. L. Iverson, soil mechanics engineer, said that hand excavation inside a tunnel liner plate through blue clay over the first 750 feet was successful during 1951.

After a "blow-out" in December of that year, freezing of the tunnel face was attempted with dry ice, but was found too costly and slow, and was abandoned, though for short distances it was found effective.

Concrete grouting was found useful through coarse sand and gravel or in cohesive clay. Working at depths sufficient to obtain good compression, the water content of the soil could be reduced to the point of good stability.

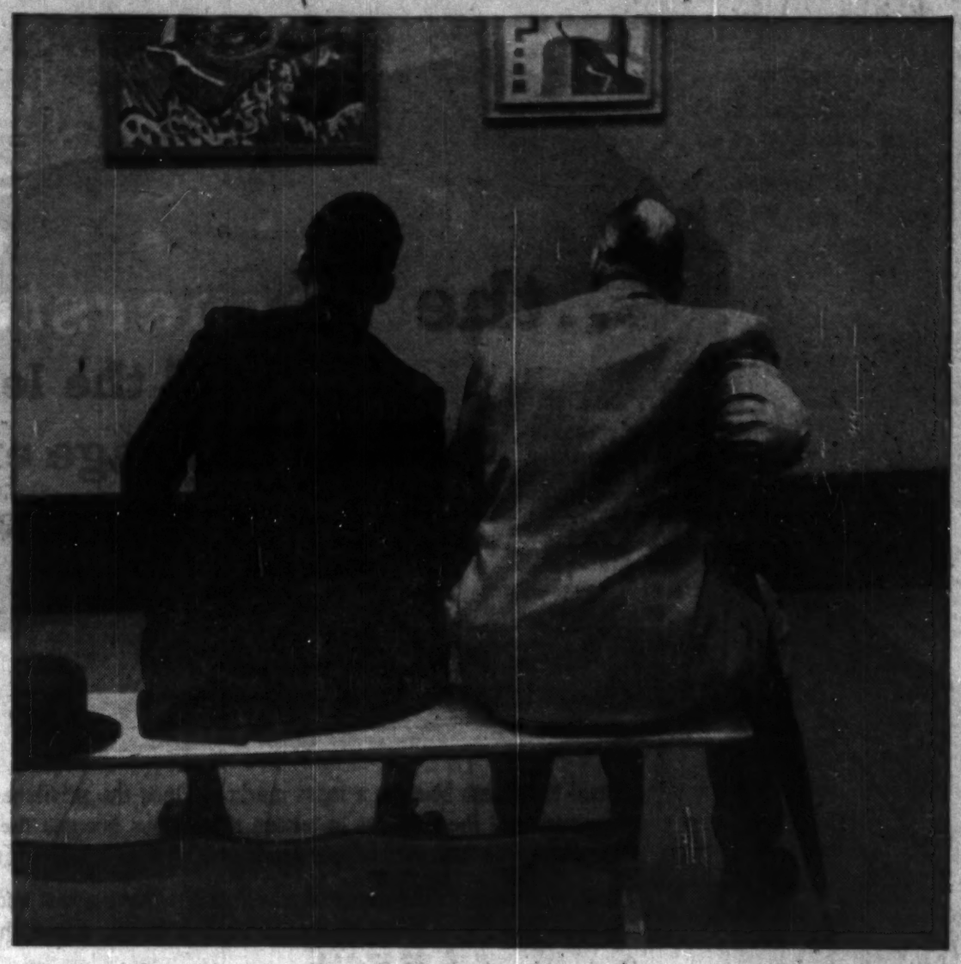
Chemical grouting, using sodium silicate and various acids to produce a suitable gel in the sand, was found useful in fine sand and silt formations as an aid in shield tunnelling. However, the grout was not strong enough to withstand high water pressures and only lasted a few hours under pressure.

Drying and stabilizing the silty sand by electro-osmosis was tried next, but was found unsuccessful probably due to the soil being too coarse and the existence of considerable water pressure.

Short wood piling of two inch by four inch fir driven to form a short circular shield proved successful in combating loose soil or clay, but was of no value where water pressure was high.

The last 600 feet of tunnel was finally completed in 1955, using first a rotary auger-type shield, and later a push-type shield with six jacks. Tunnelling with a mechanical shield proved to be the most effective method of coping with the unstable soils. By this means success is assured, even under the most adverse conditions, and progress was nearly as rapid as with hand tunnelling.

The cost of constructing a shield for a five-foot bore was between $3,000 and $5,000, depending upon the availability of materials and machine shop service. Such a cost was considered not excessive when distributed over 1,000 feet or so of tunnel.



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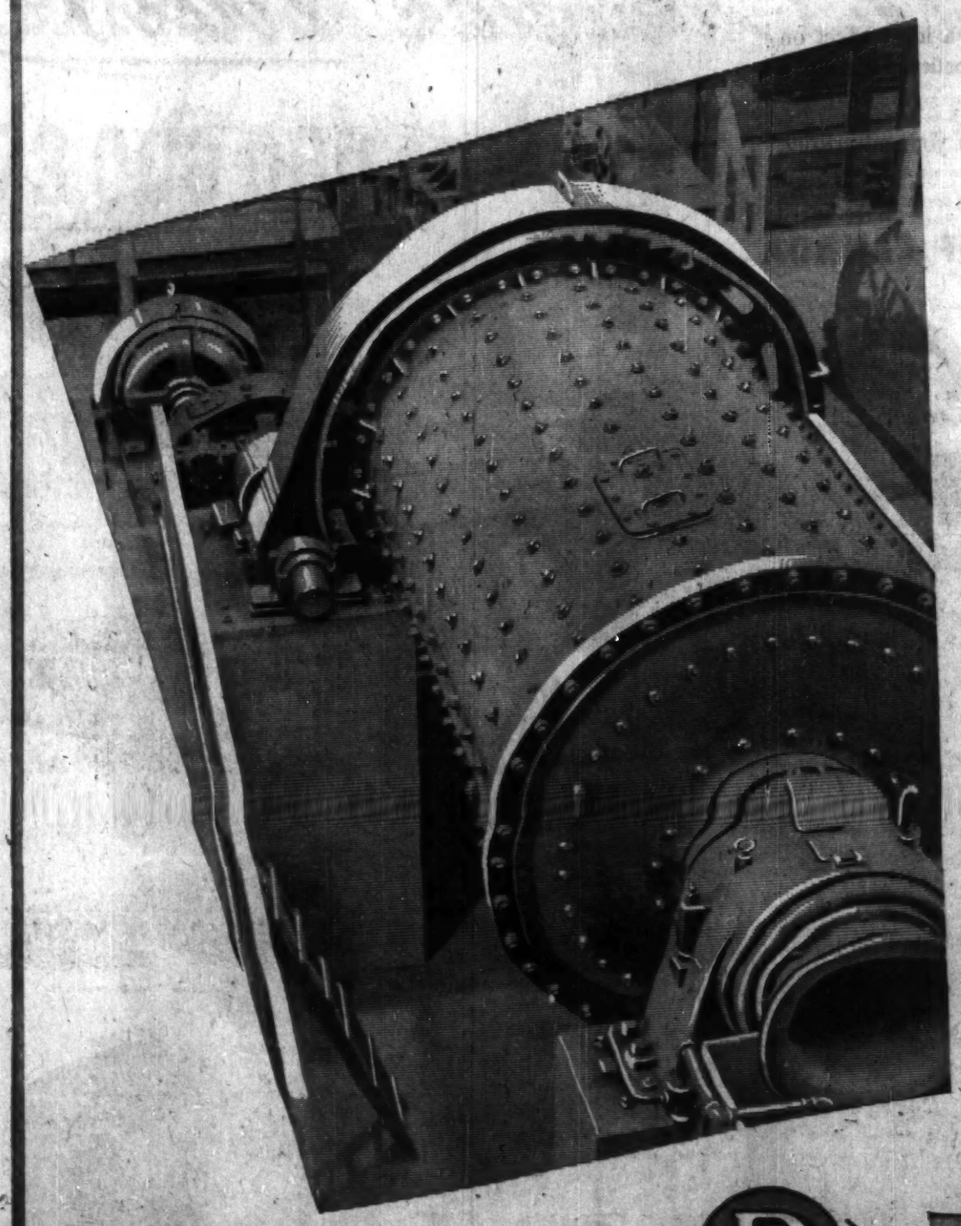

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Mill sizes have been increased to cope with modern trends toward greater unit output—a decade ago a 9' diameter mill was considered large whereas today the majority of grinding mills built by Dominion are larger, many being 12' in diameter.

Dominion has the facilities and is equipped to build even larger mills to meet the demand for more and more production as Canada's vast mineral potential is developed.

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J. Shoemaker
President

Canadian magazines, with circulations that parallel the pattern of retail sales in Canada, provide a medium trusted by their readers whose confidence in their columns is translated into sales for you.

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ANNOUNCEMENT

BANK OF NOVA SCOTIA APPOINTMENT

R. M. MACINTOSH

The Bank of Nova Scotia announces the appointment of Robert M. Macintosh, M.A., Ph.D., as Supervisor, Investment Department, in Toronto.

What's New

New products, new uses, new ideas, new money-makers. We report them here and invite your contributions. Write to 481 University Ave., Toronto.

Motor Toboggan

New snow vehicle developed by a Winnipeg engineer is being marketed later this year. Consists of toboggan with a steering wheel and behind it a detachable power unit driving a 20 in. wide rubber track. Four-stroke 9 hp. engine drives through two speed and reverse gearbox. Maker claims speed of 14 mph. and load capacity of 400 lb. plus driver. Priced around $2,000.

New Emulsifiers

Development in ultrasonic emulsifiers is claimed to reduce cost and maintenance and provide faster emulsification. New machines use fluid-dynamic forces of liquids themselves to produce sound waves. Now being marketed in Canada for the U. K. maker, machines have use in a wide range of industries, including pharmaceutical, chemical, photographic, rubber, paper and textile.

Perpetual Motion?

Clock just developed in the U. S. works without battery, wiring or manual winding. Runs from a tiny accumulator generated by either daylight or incandescent light. Claimed to go indefinitely if exposed to sufficient light.

Vary Trailer Height

Hydraulic levers and front wheel drive on the latest design of truck trailer make it possible to raise or lower the trailer so that it's level with loading platforms. Will drop to road level or rise several feet.

Pipeline Pictures

Mercury high pressure lamp recently developed in Germany makes it possible to photograph the inside of pipes over a distance of 850 ft.

Removes Insulation

Wire-stripping tool is incorporated in the handle of a household screwdriver. Wire of 14-20 gauge is put through hole in screwdriver's handle and then pulled out. Cutter in the handle takes off insulation.

Mobile Platform

Self-propelled machine for overhead factory and warehouse work is said to be much quicker than erecting scaffolding. Now available in Canada, it lifts 20-40 ft. a protected platform which can then be swung out over the job. Designed for operation by one man.

Camera For Banks

Electronic camera being sold in the U. S. can be used to record 16,000 cheques on one roll of 16 mm. film. Intended to safeguard against forgeries it can provide an immediate record of both cheques and identification.

Tougher Rubber

Silicone rubber compound announced this month by Canadian makers is claimed to achieve strength of organic rubber without losing temperature resistance of silicones. Of chief value for aircraft industry where it makes possible more rugged airframe seals.

New Brochures, Books . . .

. . . from **Stone & Webster Canada Ltd.**, 44 King St. West, Toronto 1, describing the company's activities in the field of nuclear energy; from **Air Reduction Canada Ltd.**, 905 Hodge St., Ville St. Laurent, Montreal 9, describing the equipment and techniques of oxygen cutting (400 pp.); from **General Motors Diesel Ltd.**, London, Ont., a booklet on its recently developed 71 'E' marine engine; from **Andrew Antenna Corp.**, 606 Beech St., Whitby, Ont., a new catalogue of antenna systems, transmission lines.

It May Be Big Business But... It's All Bushel To Farmers

Special Correspondence

WASHINGTON, D.C. — How much is a bushel?

The answer seems to be that it's a peck of trouble.

The Canadian and U. S. governments have been thinking about switching from the bushel to the hundredweight as the standard measure for grain.

Canadian Wheat Board and farm organizations have approved the idea.

The U. S. Department of Agriculture in a report on the problem seems to think it may be a good idea, but it doubts farmers, the grain trade and elevator people can be convinced of making the switch from bushels to hundredweight.

There is confusion in the bushel measurement for a number of reasons:

1. Standard bushel in U. S. contains 2,150.42 cu. in. Canadian bushel 2,219.6 cu. in.

2. A bushel of barley is 32 lb. in Louisiana, but 50 lb. in California and 48 lb. in many other states and Canada.

3. A bushel of rye is 32 lb. in Louisiana, but 56 lb. most everywhere else.

The idea of switching to hundredweight from bushels is to standardize things. A hundredweight is always 100 lb., even in Louisiana.

When a farmer delivers his grain to the elevator it actually is weighed in pounds, but then it's converted to bushels for the record, at 60 lb. to the bushel on wheat.

Corn and rye usually are converted at 56 lb. to the bushel, barley 48 lb., oats at 34 lb.

All important U. S. farm organizations approve the switch, but the Department of Agriculture thinks the mathematics involved would be too complicated for people to bother about.

Farmers would have to readjust their thinking, the department says.

For grain elevators the big problem would be revising service charges which are now based on bushels.

Changes would have to be made in scale tickets, receipts, certificates, rate sheets and other forms.

Commission men, brokers and jobbers would have to change commissions and handling charges.

Grain processors would have to change records and habits.

It's a good idea, says the U. S. Department of Agriculture, but it probably won't happen.

Shirriff-Horsey To Change Name

A special general meeting of shareholders of **Shirriff-Horsey Corp.** will vote June 27 on company's proposal to change its corporate name, increase the number of directors from nine to 11, and increase authorized capital stock.

Directors have worked out a plan for early acquisition of **Salada Tea Co.** and its wholly owned U. S. subsidiary, **Salada Tea Co. Inc.**, said President Grant Horsey in a letter to shareholders.

Equity capitalization outstanding after last December's preferred stock issue consisted of 52,000 (of an authorized 200,000) $25 par 5½% cumulative convertible preferred shares, and 310,000 (of an authorized 750,000) n.p.v. common shares.

Of the authorized common, 104,000 shares are held for conversion of outstanding preferred.

ANNOUNCEMENT

ATLAS METALLURGICAL APPOINTMENTS

DR. R. CLARK

MR. B. M. HAMILTON

Mr. B. M. Hamilton has been appointed Chief Metallurgical Engineer and Dr. R. Clark, Manager of Laboratories and Research for Atlas Steels Limited.

Mr. Hamilton, a Queen's honour graduate in Metallurgical Engineering, joined Atlas in 1944. His new duties will include directing Company Metallurgical Service, Process Metallurgy and Market Development functions. Dr. Clark obtained his Ph.D. at the University of Toronto. He joined Atlas Steels in 1954. He is now responsible for all laboratory control functions, as well as Research, Product and Process Development projects.

DETROIT & CANADA TUNNEL CORP., Detroit, Mich., unaudited net profit for six months ended April 30, 1957, was $248,083, 3.2% lower than net of $256,281 for the same period a year earlier. Earnings per share were equal to 31c (33c in previous period) on 788,547 shares (784,885 shares) outstanding.

Vehicular traffic for the six-month period, compared to similar period a year earlier, showed an increase of 1.1%. Tunnel bus traffic decreased by 2.4%.

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Argentina Makes Sweeping Changes in Import Rules

Special Correspondence

BUENOS AIRES—Outlook for increased Canadian exports to Argentina brightened considerably with sweeping changes in the import regulations.

Treasury Minister Adalberto Krieger Vasena announced the introduction of a new system for industrial machinery to be imported through the free exchange market on credits extended by foreign manufacturers.

He is putting into effect a three-point plan which will fundamentally "save or produce exchange which would better (our) balance of payments."

Importation of machinery is needed to enable Argentina to re-equip industries which are able to save much-needed foreign exchange by replacing imported products with locally made ones.

"Industrial machinery whose importation is authorized under this system, is for the manufacture of products which, at present, must be imported in sizeable amounts, or the production of others which could be exported also in important quantities," said Vasena.

Canada's agricultural implement and machinery manufacturers benefit from the new system.

Vasena said Argentina's economic recuperation includes the development of farming and stock-raising as well as industry.

Imports for the mechanization of the Argentine agriculture industry come within the scope of the "system."

Key note to the Vasena plan is "minimum credit terms."

Three Classes

There are three classes of imports permitted:

1. Machinery and welding tools, their f.o.b. value not to exceed $15,000 (U. S.) per unit.

2. A list of industrial machines (described as the "back bone of the system) to be paid for on credits from abroad under "established minimum terms."

3. Foreign investments and the repatriation of Argentine capital in the form of machinery.

The minimum terms were quoted as:

—Purchase made in countries mainly from the sterling and non-dollar block will have to be on payment terms of no less than four years, with a first quota of not more than 20% of the total f.o.b. purchase-value and the rest in equal amounts. The subsequent first payment must not be made before one year.

Purchases from other countries the U. S., Canada and the dollar area will have to be paid for on credit terms of no less than eight years with payment of quotas the same as for the above countries.

Most items imported will have to be new and machinery purchased must be for the exclusive use of the purchaser.

The Argentine Central Bank is setting up an advisory board to advise the bank on the inclusion or exclusion of items of the different lists.

Industrialists will have a voice on the board through such organizations as the Union Industrial Argentina.

Where Argentina has to pay in "trade-agreement dollars" to countries linked with her by bilateral agreements the Argentine Central bank will pay the official institutions of the respective country at the appropriate opportunity the necessary sums.

The importers will have to pay the Central Bank an equivalent amount to be transferred in any currency of the Western European multilateral area purchased from the free exchange market.

Vasena hopes his new system will enable Argentina to carry out the "industrial re-equipment and development vitally necessary" for the country's recovery.

ANNOUNCEMENT

DONALD R. COOPER

Appointment of Donald R. Cooper as Director of Sales in the Head Office of Martin Paper Products Ltd., is announced. Mr. Cooper will be at the new location of the Head Office: 211 Dayton Building, 323 Portage Avenue, Winnipeg, and will be responsible for the coordination of all sales activities of the Company. Mr. Cooper returns to Canada to join Martin after nine years' experience in sales with a large integrated paper corporation, chiefly in the Pacific states of the U. S.

MacMILLAN & BLOEDEL LTD. during May converted 650 Class A shares into same number of B shares. Now 33,507 A shares and 5,252,031 B shares outstanding.

An Investment Yielding 6.52%

Canadian International Power Company Limited owns approximately 97% of the outstanding common shares of International Power Company Limited, which with its subsidiaries has an unusually favourable record of growth in consolidated earnings. Neither International Power nor any of its subsidiaries has any funded debt outstanding in the hands of the public.

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ANNOUNCING

Important appointments in Canadian Industry, Finance, Business and Government.

Alliance Nationale Life Insurance Co. (Montreal) — Herve Belzile, managing director.

Bank of Nova Scotia (Halifax)—R. M. McIntosh, supervisor, investment Department, in Toronto.

Bishop Asphalt Papers Ltd. (Portneuf, Que.)—J. A. Craig, executive vice-pres. to be president; H. E. Brown, sec. and treas. parent company, Sidney Roofing and Paper Co., and J. D. Vickers, general sales manager to be directors.

Canadian Car Co. (Montreal)—E. J. Cosford, chairman, succeeding Sir Roy Dobson; A. C. MacDonald, president and managing director, succeeding Mr. Cosford; L. G. Main, co-ordinator of merchandising.

Canadian Paper Box Manufacturers Association (Toronto) — C. S. Smith, assistant general manager and comptroller, Dominion Paper Box Co., president.

Canadair Ltd. (Montreal)—Dean P. Stowell, vice-pres. manufacturing, in acting capacity, succeeding R. A. Neale, on leave of absence; John Urwin, sec.-treas.; F. R. Kearns, executive assistant to the president; John B. Hunter, assistant comptroller.

Canadian General Electric Co. (Toronto)—T. J. Carey, manager devices, conduit and lighting; R. F. Harrison, manager, plastics.

Cockfield, Brown & Co. (Montreal)—Michael J. McCormick, a senior account executive, on Montreal staff.

Firth Sterling (Canada) Ltd., (Toronto)—Harry Davidson, asst. district manager, Ohio Sales District, to be Canadian district manager.

Forano Ltd. (Plessisville, Que.) — John W. Francis, sales engineer, at Montreal office, power transmission and materials handling division.

Fraser Companies Ltd. (Plaster Rock, N.B.)—E. S. McLean, formerly assistant treasurer, to be treasurer, succeeding H. H. Henderson, retired; H. M. Logan, general auditor, to be assistant treasurer, both changes on executive staff at Edmundston.

Gali Machine Screw Co. (Toronto, Ont.)—S. H. Watt, to be vice-president, continues as manager Standard Sales division, Canadian Acme Screw and Gear Co.

Great-West Life Assurance Co. (Winnipeg)—E. G. Bumstead, supervisor, Kitchener branch.

Green Cross Products Division, Sherwin-Williams Co. of Canada (Montreal)—J. K. Brown, assistant general manager; A. L. Havard, general sales manager; E. W. Smye, assistant general sales manager; E. S. Jonasson, western district manager; E. Lindenbach, assistant western district manager; K. W. Dash, advertising manager; Messrs. Brown, Havard, Smye and Dash are located at head office, Montreal; Messrs. Jonasson and Lindenbach at the Green Cross office, in Winnipeg.

Hill-Clark-Francis (Quebec) Ltd. (Noranda, Que.)—J. A. Scott, manager Montreal branch office.

King Merritt & Co. (Canada) Ltd. (Montreal)—Paul Laville, general manager for Saskatchewan, principal office, Regina.

Laughlin, Wyllie & Ufnal (Toronto) Consulting engineering firm — W. H. M. Laughlin, John Fraser Wyllie and Chester Stanley Ufnal, all formerly with Proctor, Redfern and Laughlin, partners.

Lederle Laboratories Division, North American Cyanamid Ltd. (Montreal)—R. Gifford Beaton, Toronto district manager of "Lederle of Canada".

Maritimes Transportation Commission (Moncton, N.B.)—A. Murray MacKay, president Maritime Telegraph & Telephone Co., Halifax, chairman; Johnston Chew, barrister, etc., Glace Bay, N.S., vice-chairman N.S.; Edgar Miller, director A. E. Hickman Co., St. John's Nfld., vice-chairman Nfld.; E. D. Reid, E. D. Reid Produce Ltd., Charlottetown, vice chairman, P.E.I.; Howard A. Mann, Moncton, N.B., executive manager.

Massey-Harris-Ferguson Ltd. (Toronto)—John G. Staiger, formerly assistant to executive vice-pres., automotive division, American Motors Corp., to be assistant to the president.

McIntyre Porcupine Mines Ltd. (Schumacher, Ont.)—M. L. Urquhart, general manager, headquarters at Toronto.

Nesbitt, Thomson and Co. (Montreal)—C. D. Bird, manager Kitchener office.

Noe Bourassa Ltee. (Montreal) — makers La Belle Fermiere meat products — Cal N. Moisan Jr., president and general manager, Dominion Containers Ltd., etc., a director; Laurent Tessier, secretary-treasurer.

O'Brien Advertising Ltd. (Vancouver)—H. P. (Bing) Kelley, former president Russell T. Kelley Ltd., Hamilton, to be accounts manager.

Reevey, Blackmore Burnham Laws & Page (Saint John, N.B.—David C. MacDonald joins firm as staff supervisor, Saint John office.

Royal Trust Co. (Montreal)—Conrad F. Harrington, vice-president and supervisor, Ontario branches, reporting to J. M. Wells vice-pres. and general manager.

Sidney Roofing & Paper Co. (Victoria)—T. N. Finical, vice-pres., manufacturing and H. Mears, vice-pres., sales, to be directors.

Silverwood Dairies Ltd. (London, Ont.)—Adam M. Welsh, general manager Toronto division, a director.

Somerville Ltd. (London, Ont.)—F. C. Lennox to be president and general manager, succeeding R. A. Irwin resigned; D. J. Snell and G. C. Snell, president and vice-pres. respectively of Canadian Folding Cartons Ltd., a wholly owned subsidiary, to be directors.

Stanley Brock Ltd. (Winnipeg)—H. M. Cave, manager Vancouver branch, a director.

Stewart, Smith (Canada) Ltd. (Montreal)—Donald Crocker and Thomas Burnard, formerly with parent company, in London, Eng. to be directors.

Toronto-Dominion Bank (Toronto)—G. L. Wilcox, president, Canadian Westinghouse Co., etc., a director.

Trans-Canada Pipe Lines Ltd. (Calgary)—N. E. Tanner, formerly president to be chairman headquarters Calgary; C. S. Coates, formerly executive vice-pres., and general manager, to be president, headquarters Toronto.

Underwriters Laboratories of Canada (Toronto)—Stanley M. Elliott, Canadian manager, Phoenix of Hartford Insurance Companies and Westchester Fire Insurance Co., president; Ronald F. Swaine, manager for Canada Norwich Union Group 1st vice-pres.; R. L. Young, manager for Canada, Caledonian Group, 2nd vice-pres.; besides Mr. Young, newly elected directors are F. W. Bailey, assistant general manager Western Group; R. Holroyde, manager for Canada, Eagle Star Group; W. E. Matchett, manager for Canada, Caledonian Group.

Western Clock Co. (Peterborough, Ont.) — H. T. Cranford, general manager, director and vice-president to be president.

W. I. HETHERINGTON

senior partner with Gunn, Roberts & Co., in Toronto, has been elected president, Institute of Chartered Accountants of Ontario.

CORRECTION

President of the Edmonton Stock Exchange is K. S. Langfeldt, who is serving his second term. In a previous issue (FP, June 3) it was incorrectly reported that J. L. Sutherland was president.

SEC Reports Stock Trading

Among changes in security holdings reported by the U. S. Securities & Exchange Commission, covering reports filed with the SEC in May by company officers and directors, were the following:

Dana T. Bartholomew, officer and director, bought 2,300 shares through option exercise and sold 1,000 shares of **Aluminium Ltd.** common in April, increasing his holdings to 2,325 shares.

J. A. Dulles, officer and director, bought 1,000 shares through exercise of option and sold 300 shares of **Aluminium Ltd.** common in April, increasing his holdings to 4,450 shares.

H. H. Richardson, officer and director, bought 1,000 shares through option exercise and sold 300 shares of **Aluminium Ltd.** common increasing his holdings to 2,400 shares.

A. G. Bailey, officer, bought 10,000 shares through option exercise of **Bailey Selburn Oil & Gas** Class A common in March, increasing his holdings to 20,998 shares.

Walter Maynard, director bought 100 shares of **Campbell Chibougamau Mines Ltd.** common in April, increasing his holdings to 700 shares.

Arthur Notman, director, bought 2,500 shares of **Campbell Chibougamau Mines Ltd.** common in April, increasing his holdings to 10,000 shares.

MacDonald S. Denman, officer and director, sold 1,400 shares of **Crown Zellerbach Corp.** common in April, reducing his holdings to 1,450 shares.

Gerald E. Young, officer, sold 1,000 shares of **Crown Zellerbach Corp.** common in March, reducing his holdings to 4,000 shares.

Thayer Lindsley, officer and director, sold 1,000 shares of **Eureka Corp.** capital stock in April reducing his holdings to 226,022 shares.

A. H. Meadows, officer and director, bought 1,000 shares of **Fargo Oils Ltd.** common in April, increasing his holdings to 3,500 shares. **General American Oil Co., Texas**, in which he has beneficial interest, held 1,250,308 shares.

Joseph S. Nye, director, bought 200 shares of **Granby Consolidated Mining, Smelting & Power Co. Ltd.** common in April, increasing his holdings to 1,000 shares.

J. W. Hamilton, officer, bought through exercise of option 200 shares of **Hefne Oil Co.** class B common in March, increasing his holdings to 213 shares.

Theodore S. Watson, director, held 2,000 shares of **International Utilities Corp.** common in April. **Watite Corp.**, in which he has a beneficial interest, sold 100 shares in April, reducing its holdings to 11,100 shares. **Investors & Traders Inc.**, in which he has a beneficial interest, held 5,000 shares.

N. E. Tanner, officer and director, sold 10,000 shares of **Merrill Petroleums Ltd.** common in April, reducing his holdings to 64,471 shares.

C. R. Walker, officer and director, bought 25,000 shares of **Merrill Petroleums Ltd.** common in April, increasing his holdings to 190,750 shares.

Loblaw Groceterias Co., beneficial owner, bought 7,500 shares of **National Tea Co.** common in February ing its holdings to 712,057 shares.

General Petroleums of Canada Ltd., beneficial owner, bought 500 shares of **New Superior Oils of Canada Ltd.** common in April, increasing its holdings to 447,147 shares.

Kenneth H. Rockey, director, sold 1,000 shares of **Nickel Rim Mines Ltd.** in April, reducing his holdings to 16,000 shares.

Frank E. Ruben, officer and director, bought through exercise of option 50,000 shares of **North Canadian Oils Ltd.** in December. He transferred 15,000 shares in December and loaned 25,000 shares in May, 1953, to borrowers who subsequently defaulted, reducing his holdings to 437,984 shares.

J. N. V. Duncan, director, sold 20,000 shares of **Northspan Uranium Mines** common in April, reducing his holdings to 4,000 shares.

C. R. Hetherington, officer and director, bought 8,000 shares of **Pacific Petroleums Ltd.** common in April, increasing his holdings to 9,001 shares.

Frank E. Taplin, officer and director, bought 37,100 shares of **Scurry-Rainbow Oil Ltd.** common in April, increasing his holdings to 347,100 shares.

Gordon H. Allen, director, bought 2,000 shares of **Trans-Empire Oils Ltd.** common in March, his entire holdings.

Jean A. Bussuet, officer and director, bought 2,000 shares of **Trans-Empire Oils Ltd.** common in March, his entire holdings.

West Canadian Petroleums Ltd., beneficial owner, received in exchange for its assets 4,336,507 shares of **Trans-Empire Oils Ltd.** in March, its entire holdings.

C. F. H. Carson, director, bought 200 shares of **Hiram Walker-Gooderham & Worts Ltd.** common in April increasing his holdings to 1,000 shares.

Jared C. Horton, director, bought 300 shares of **Webb & Knapp**, common in April, increasing his holdings to 400 shares.

William Zeckendorf, officer, director and beneficial owner bought 3,000 shares of **Webb & Knapp** common in April and purchased, from officer and director who resigned, 75,000 shares in April, increasing his holdings to 4,731,580 shares.

Businessmen Head Board Of McMaster

Canadian business will be well represented on the new board of governors of McMaster University, Hamilton; a majority of the governors will be top businessmen.

The new board is a non-sectarian administrative agency resulting from the decision of the Baptist Convention of Ontario and Quebec to relinquish control of the 70-year-old university (FP, May 23).

The new board is composed of 28 members nominated by the former boards of McMaster and Hamilton College; three elected by trustees of McMaster Divinity College; two elected by the university's teaching staff, and five elected by McMaster Alumni Association.

Following is the list:

Nominated by old McMaster board of governors:
C. C. Calvin, **Fasken, Robertson, Aitchison, Pickup & Calvin**, Toronto.
C. P. Fell, **Matthews and Co.**, Toronto.
E. C. Fox, vice-president, **Brazilian Traction, Light and Power Co.**, Toronto.
A. G. Hilchon, **Bunnell, Hilchon, Ltd.**, Brantford, Ont.
G. L. Holmes, president, **Manufacturers Life Insurance Co.**, Toronto.
J. H. Northway, president, **John Northway and Son Ltd.**, Toronto.
H. A. Willis, QC, Toronto.
A. E. Walford, comptroller, **Henry Morgan and Co.**, Montreal.
Nominated by retiring Hamilton College Board:
E. H. Ambrose, **Clarkson, Gordon and Co.**, Hamilton.
St. Clair Balfour, Jr., executive vice-president, **The Southam Co. of Canada Ltd.**, Toronto.
M. B. Bates, president, **Life Savers Ltd.**, Hamilton.
C. H. Boothe, general manager, **T. Eaton Co.**, Hamilton.
R. B. Bradley, president, **International Harvester Co.**, Hamilton.
R. W. Cooper, president, **Cooper Construction Co.**, Hamilton.
H. P. Frid, president, **Frid Construction Co.**, Hamilton.
W. H. Funston, president, **Firestone Tire and Rubber Co.**, Hamilton.
G. C. Gaskin, president, **Studebaker-Packard of Canada**, Hamilton.
H. G. Hilton, chairman of the board, **Steel Company of Canada**, Hamilton.
F. I. Ker, Dundas, Ont.
H. H. Leather, president, **Leather Cartage Co.**, Hamilton.
Argue Martin, **Martin and Martin**, Hamilton.
J. M. Pigott, president, **Pigott Construction Co.**, Hamilton.
F. A. Sherman, chairman of the board, **Dominion Foundries and Steel Co.**, Hamilton.
W. F. Schwenger, judge, county of Wentworth.
G. L. Wilcox, president, **Canadian Westinghouse Co.**, Hamilton.
A. V. Young, president, **Hamilton Cotton Co.**, Hamilton.
J. V. Young, vice-president, **Cosmos Imperial Mills**, Hamilton.
Elected by McMaster Alumni Association:
Lloyd D. Jackson, mayor, Hamilton.
J. H. Moore, general manager, Chamber of Commerce, Hamilton.
W. S. Bush, assistant to the president, **DuPont of Canada Ltd.**, Montreal.
N. A. White, superintendent of business development, **Toronto-Dominion Bank**, Toronto.
Kenneth W. Taylor, deputy minister of finance, Ottawa.
Nominated by teaching staff of the university:
Dr. H. G. Thode, principal, Hamilton College.
Dr. H. S. Armstrong, dean of arts and science, McMaster.
The following former members of the retiring Boards will be honorary members of the new:
W. D. Black, Waterdown, Ont.
Thomas Cameiford, Dunnville, Ont.
E. B. Eastburn, Hamilton.
H. B. Greening, Hamilton.
Tracy E. Lloyd, Toronto.
Gordon C. McEwen, Toronto.
A. A. Schmon, Thorold, Ont.
G. W. Wigle, Hamilton.

114 Stocks Yield Averages 4.89%

The average yield on 114 dividend-paying stocks on the Toronto Stock Exchange, as compiled by **Moss, Lawson & Co.** on prices of June 17, 1957, was 4.89% off .08 from the previous week. The current yield compares with 4.98% one month ago and 4.62% in the corresponding week last year.

Here is the yield by the various groups:

	June 17	Week Ago	Month Ago	Year Ago
	%	%	%	%
Common	4.37	4.36	4.39	4.14
Pfd. & A	5.27	5.29	5.22	4.75
Mining	6.39	6.65	6.80	6.01
Banks	3.28	3.31	3.35	3.39

REAL ESTATE

A CANADA-WIDE MARKETPLACE FOR BUYERS AND SELLERS

May Cotton Openings Down

MONTREAL (Staff) — Activity in the Canadian cotton textile industry — as measured in terms of openings of bales of raw cotton — declined during May from the level attained in the previous month, but nevertheless was higher than in May of 1956.

The industry opened 30,340 bales of raw cotton last month, 787 fewer than 31,127 bales in April.

The May bale openings however, were 4.6% higher than 28,999 bales opened in May of last year.

So far this year the industry has opened a total of 158,950 bales of raw cotton, 2.8% fewer than 163,608 in the first five months of 1956.

Somerville Ltd. Bonds Yield 6.08%

A new $2.4 million issue of 6% first mortgage Series B s.f. bonds of **Somerville Ltd.**, London, Ont., has been sold by underwriters **Wood, Gundy & Co.** and a syndicate of investment dealers. Price was 99, to yield 6.08%.

Due June 15, 1977, the bonds will be non-callable for refunding purposes at a lower rate of interest for the first 10 years. Sinking fund will retire $100,000 annually 1961-68, and $125,000 a year 1969-76.

Company and its subsidiaries produce lithographed and printed packaging materials such as folding cartons, set-up boxes, printed paper bags, milk and ice cream cartons.

It is a major supplier of automotive nd appliance components made from panelboard and plastic.

Sales in first-quarter 1957 were approximately 20% higher than in January-March, 1956. Consolidated net earnings totaled $159,670, up 38.6% from $115,214 in the first three months of last year.

Since 1952, company has been carrying out an expansion program which will double its manufacturing space upon completion later this year of the new Montreal plant.

Operations are carried on at Crumlin (near London), Strathroy, Windsor, Toronto and Scarborough, Ont., Montreal and Winnipeg.

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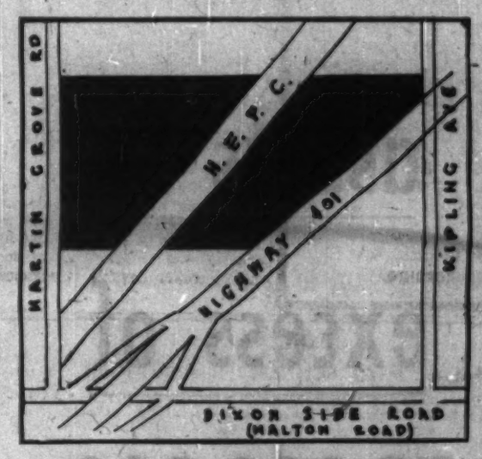

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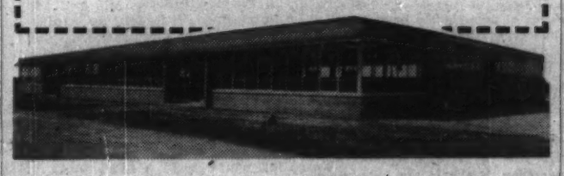

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suitable for financial office — McLeod Building
now occupied by **Montreal Trust Company**
available about August 1st—approx. 2,000 sq. ft.
Apply: L. W. Sadler
MONTREAL TRUST COMPANY
McLeod Building, 100th Street
EDMONTON, ALTA.

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Well located downtown Toronto building, fully rented.
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About $600,000 cash required —balance amortized over 10 years.
Inspection invited.
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Exclusive Agents
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We have just completed a modern business and professional building in the new Bayers Road Shopping Centre.
Now available over three thousand square feet of office space, balance of ten thousand already occupied by other national companies. Sprinklered, ventilated, heated and acres of parking. Also store space built to order in Halifax's new Bayers Road Shopping Centre.
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353 Bayers Road Shopping Centre
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OUR 76th YEAR

Quebec
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SEPT-ILES REALTIES LTD.
Phone: 3144 P.O. Box: 817

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Post subscribers and newsstand buyers across Canada are your best prospects for widely varied real estate. More than 7 out of 10 own homes or other real estate. Nearly 28% in business buy or influence the buying of real estate and new plant sites.
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Luxury apartments
Commercial leaseholding
Property management

Contract and real estate directory rates for advertising will be sent promptly upon request. Write to:
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Canada's foremost business newspaper
481 University Avenue, Toronto 2
1242 Peel Street, Montreal 2

CLASSIFIED ADVERTISEMENTS

CLASSIFIED ADVERTISING RATES

First rate, per word 15c
Minimum charge $4.50
Each initial, figure or fraction, abbreviation and sign counts as one word. If a box number is desired the words, Box 100 The Financial Post, Toronto, count as six words. When replies are mailed to advertiser, 15 cents extra is charged. Closing date—Copy must be in Toronto office by Monday a.m. Classified advertising is strictly cash in advance.

Positions Wanted

EXECUTIVE WITH THIRTY YEARS experience available for position representing manufacturers in Peking. Good knowledge language and business conditions. Last position with United Nations as Specialist and Advisor, Sales and Valuations. Box 899, The Financial Post, Toronto.

EXECUTIVE-ADMINISTRATOR eighteen years business and sales administrative background, wide knowledge in the export-import fields, currently employed in executive position seeks challenging new connection in either Toronto or Montreal. Box 885, The Financial Post, Toronto.

SALES CAREER WANTED

YOUNG MARRIED MAN, Unit Superintendent for large Ontario contractor, desires sales career in building material or construction equipment field. Opportunity for future advancement essential. Box 903, The Financial Post, Toronto.

Business Opportunities

EXECUTIVES SELECTED IN U.K. for positions in Canada, according to your requirements. For details write Box 823, Maclean-Hunter Limited, 125 Strand, London, W.C.2, England.

COLLECTIONS

WE COLLECT your slow accounts for less than $2 each. Bonded. Licensed. Proven! Write Dixon, 28 Edgar Avenue, Toronto. Telephone Belmont 1-7702.

JAPAN DIRECTORY. List of Japanese manufacturing exporters, plus Japan trade journal information, and literature about the "Ginza Plan." Just $1.00 today. Nippon Annai, Box 6286-F, Spokane 28, Washington.

REINFORCED CONCRETE AND STEEL DESIGNS undertaken by an English concern for Canadian concerns or some fee sharing scheme welcomed. Box 900, The Financial Post, Toronto.

France's New Jet Airliner Challenges North America

MONTREAL (Staff) — This week a new contender in the jet airliner race arrives in Canada.

It is **France's Sud Aviation** Caravelle twin-jet 60-80 passenger transport.

In Canada Caravelle will take up groups of airline executives and aviation officials at Montreal and Toronto before returning to Paris next week.

Big target will be the smaller independent airlines who are hoping the change in government will mean a change in policy and more passenger routes in Canada.

Basically Caravelle is similar to Britain's Comet. However, it differs in one key feature. Its two Rolls Royce Avon jet engines are set side by side on the wall of the fuselage just below the tail.

This design has excited aircraft makers the world over. One of the biggest problems faced by designers is how to assure a "clean wing"—i.e., one not cluttered by engine shapes — that allows smoother and more economical flight.

So far the U.S. companies have chosen to "pod" their engines on struts below the wing. This gives a clean wing, ease of maintenance, but considerable wind resistance or drag.

Britain and Russia have followed the line of burying the engines deep in the wing roots. This gives a fairly clean wing, little drag, but means a real headache if quick servicing of the engine is required.

The French approach seems to score heavily in all fields. The newest British jet recently announced by **Vickers Armstrong** is following the Caravelle's engine placing lead.

This week's visitor has other winning points. Early delivery—late next year.

Quite cheap—$1.8 million compared to the Comet ($3.4 million) and the Douglas DC-8 and Boeing 707 ($5.5 million).

It is not a competitor of the bigger jets as the Caravelle is basically a short to medium range machine.

A spokesman for the builders told **FP** this week the Caravelle can operate from existing airfields and requires far less than the standard 7,000 ft. runway now in use.

The French have just completed an extensive sales tour throughout South America and the U.S.

Positions Available

RAPIDLY EXPANDING interior British Columbia City urgently requires the services of a Professional Town Planner. Reply stating age, marital status, professional qualification, salary expected, and supply references to Box 898, The Financial Post, Toronto.

OPPORTUNITIES

AMERICAN COMPANY WISHES TO PURCHASE SMALL COMPANY

ACTIVELY ENGAGED AS FREIGHT BROKERS AND CUSTOMS BROKERS, PREFERABLY IN MONTREAL. CURRENTLY ACTIVE COMPANY PREFERRED BUT WOULD BE INTERESTED IN COMPANY LIQUIDATING OR CLOSING DOWN. WRITE IN CONFIDENCE TO

BOX 904,
THE FINANCIAL POST,
TORONTO.

NEED CAPITAL?

75% (est. 3 of 4) use "surest" plan—"RAISE YOUR OWN"!
(Save plenty! Others do! We cooperate!)
Uses "proven" system used by successful dealers, also firms "raising their own"! Plan helps secure stock, subdivision, similar salesmen! Full year cooperation by Investment Counsel - silent partnership basis. Cooperation with contractors, explorers, investment dealers, etc. Describe proposition fully.
HAZEN ASSOCIATES
1011 Lexington Ave., Dayton 7, Ohio.

DISPLAY ADVERTISING RATES

$8.40 per col. inch per insertion. (60 cents per agate line, 14 lines constitute one inch) Closing date — Copy must be in Toronto Office by Monday a.m. Display advertising in this section payable in advance

FOR SALE
WHOLESALE MEAT BUSINESS IN EDMONTON, ALTA.

Ill health forces sale of this terrific Wholesale meat business, fully equipped to do ½ million turnover. This is a sound profitable business and suitable for 3 or 4 partners. For further information contact Jim Balkan, Meistad & Co. Ltd., 27186. 10127 - 102 St., Edmonton, Alta.

RESTAURANT, FRUIT MARKET ICE CREAM OUTLET

Extensive concession in new downtown shopping centre in heart of large Western Ontario city. Adjacent to large department store and with extensive parking facilities. Long term lease, $50,000. cash will handle.
BOX 895, THE FINANCIAL POST, TORONTO

OPPORTUNITY

Going concern. Woodworking factory western Ontario. Fully equipped with large dealer organization. Available immediately to responsible party. Good price, excellent terms.
BOX 878, THE FINANCIAL POST, TORONTO

FOR SALE
WHOLESALE HEATING SUPPLY BUSINESS

located in healthy and growing area — very good contacts established both with customers and suppliers — two lines of name brand furnaces on distributors basis — complete line of duct, fittings, controls in stock plus manufacturing facilities for odd size fittings — this business is established and operating successfully now — located in new 4000 sq. ft. building which can be purchased or leased — owner too busy with other business commitments — inventory approximately $25,000.00 — ⅓ will handle — priced at book value.
BOX 217, BARRIE, ONT.

MANUFACTURING BUSINESS WANTED

U. S. Company (with Canadian subsidiary since 1913) heavily engaged in the manufacture of aircraft products desires to purchase small Canadian manufacturer of aircraft products, preferably proprietary in nature. Products may be in the related fields of electronics, hydraulics, precision gearing, rotating machinery.

In reply give description of products, business record and asking price.

Appointments with direct representative of U.S. Company being arranged in Toronto weekends starting June 8. All replies confidential.

Box 859, The Financial Post
481 University Ave., Toronto 2, Canada

AVAILABLE FOR KEY POSITION

with company considering new activities in aircraft manufacture, sales or operations. Engineer with over ten years technical and administrative experience in aeronautical research and development. Wartime and post-war pilot. Close familiarity with design and operating problems of modern aircraft.
Box 896, The Financial Post, Toronto.

OFFICE MANAGER
EXECUTIVE CALIBRE SEEKS CHANGE

20 years' experience in accounting and administration, financial statements, credits, budgets, forecast—both sales and financial, purchasing, costing and personnel. Age 44, married, Toronto, ME. 3-9715.
Box 901, The Financial Post, Toronto, Ont.

AVAILABLE
Life Insurance Manager
Presently employed
wishes to make change

1 Success sales
2 Manager Know-How (men available)
3 Branch Organization experience, Toronto, Central and Western Canada
4 Head Office — 6 years — knowledge of all departments
5 Accepting company must offer wide opportunities in return for active successful results.

Box 910, The Financial Post

SALES ENGINEER, MEIC, P.ENG.

Age 37, located in Montreal, seeks position as technical sales representative with progressive expanding company whose duties and prospects offer adequate scope for energy, experience and ability. In addition to extensive sales experience, assignments have included layout and design, engineering and economic studies, production planning, cost reduction, personnel selection, and training, company organization and corporation finance. Firms interested in graduate engineer with these qualifications apply
Box 890, The Financial Post, Toronto

MANAGER WANTED

Internationally known Charm School requires young executive to assume management of company. He must be 30-37 years of age, married and good appearance. Knowledge of accounting and experience in sales promotion necessary. Previous experience with Reducing School, Model Agency, Finishing School or Dance School would be an asset. Excellent salary and percentage of profits for the right man. Give full particulars in letter of application together with a recent photograph.

Apply to Box 906,
The Financial Post, Toronto

MARKET RESEARCH MANAGER
required by
BP CANADA LIMITED

Major oil company entering Canadian market requires executive to take charge of planning and market research department. Excellent opportunity for man with wide marketing experience and extensive knowledge of market research techniques. Previous oil company experience essential. Successful candidate will be located in Montreal.

Please reply in confidence to:
Personnel Manager
BP Canada Limited
550 Sherbrooke St. West,
Montreal

WANTED — AN OPPORTUNITY

I'm selling . . . imagination, initiative and a successful background in electronic data processing and sales promotion.

If you need . . . a young executive (age 34) with mature judgment and a vigorous approach to business, write box number
907, The Financial Post, Toronto

INVESTMENT ANALYST

Required by leading brokerage firm in Montreal to head Research Department.

Write, stating education, experience, and salary requirements, enclosing a few representative samples of work. Application treated in strictest confidence. To Box 902, The Financial Post, Toronto

UNIVERSITY OF SHERBROOKE FACULTY OF COMMERCE

The Faculty of Commerce of the University of Sherbrooke invites applications for the position of Assistant Professor or Associate Professor in the Department of Administration, effective not later than September 1st, 1957, with initial salary of $5,000.00 to $7,000.00, depending on qualifications. Applications should be sent to the Director, Faculty of Commerce, University of Sherbrooke, Sherbrooke, Quebec, and should be accompanied by a curriculum vitae, transcripts of academic record, names of three references and a recent snapshot or photograph.

EXECUTIVE OR ADMINISTRATOR
AVAILABLE

Over thirty years with one organization in all sections of Canada. Early fifties. Proven integrity and ability. Diversified experience in personnel, public and labour relations; protection and security; office administration and branch office organization. Will relocate, travel or accept overseas assignment.
Box 879
The Financial Post, Toronto

Insurance Administrator Available

Widely experienced insurance official, chief executive insurance company calibre, fully qualified to organize and administer all phases of centrally directed insurance division, seeks employment contact with interested large enterprises or business management consultant firms. Box 891, The Financial Post, Toronto.

EMPLOYMENT OPPORTUNITIES
(Placement fee paid by Employer)

General Manager, Toronto	$18,500
General Manager, Toronto	$15,000
General Manager, Montreal	$12,000
Comptroller (60 employees), Toronto	$12,000
Treasurer (210 employees) Toronto	$17,500
Senior Accountant, Guelph	$ 9,000
Accountant Office Manager	$ 8,000
Secretary-Treasurer, Toronto	$10,000
General Sales Manager, London	$15,000
General Sales Manager, Toronto	$15,000
Sales Manager, bldg. materials	$10,000
Sales Manager, electric prod.	$12,000
Production Control Manager	$ 8,000
Advertising Manager, Toronto	$16,500
Advertising Manager, Windsor	$12,000
Advertising Acc. Ex., Toronto	$15,000

(INQUIRIES TREATED IN CONFIDENCE)

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I.B.M. Electric Typewriter

50 copies of one page	$4.90
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General Manager's Job Campaign	$125.00
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Sales Manager's Job Campaign	$100.00
Works Manager's Job Campaign	$ 90.00

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Job Campaign Planning Guide $1.00

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and
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CAREERS

This is Canada's national meeting place for executives who have positions to offer, and for those who have ability to offer

WESTERN FIELD REPRESENTATIVE

for National business association. Responsibilities involve visiting and servicing local groups throughout western Canada. Good education and presentation important. Speaking and organizing ability required. Salary range up to $5,000. plus expense account. Pension and insurance benefits. Reply in writing. Give full details including qualifications and experience to:

Box 893
The Financial Post, Toronto

FOREIGN TRADE

Dutch / Canadian executive shortly returning to Canada after 6 years with internationally known British electrical and electronic manufacturer, available to initiate or expand foreign trade and relations for progressive industrial or commercial organization.

Extensive practical experience in all aspects of export marketing, sales promotion, sales office management. Specialized knowledge of European economic conditions, numerous contacts. Only 30; married, excellent references, get on well with people. Please write in confidence to

Box 891, The Financial Post,
University Avenue, Toronto.

DIVISIONAL ACCOUNTANT

Diversified company, presently decentralizing internal accounting control, requires industrial/cost accountant to be responsible for payroll, costs, invoicing, sales and profit analysis of two branch plants with divisional office located in Eastern Toronto area.

Age 25 to 30, University or Technical degree and minimum of 3 years' experience together with knowledge of McBee techniques desirable.

Write, giving complete information of experience and past employment.

Box 887, The Financial Post, Toronto

MORTGAGE DEPARTMENTS ATTENTION

Young man (age 34) who has made money in mortgages would like to get employment with company where his knowledge would be an advantage.

Reply Box 905, The Financial Post, Toronto

Sales Manager Available

I would like an opportunity to help you increase sales.
Let me send you details of my 10 year business record.
Box 886, The Financial Post, Toronto

WE HAVE AVAILABLE NOW

1. **ADMINISTRATOR/MGR.** Heavily exp. Industrial Consultant. Salary approx. $10,000.
2. **SECRETARY-TREASURER/BUDGET ANALYST.** Thoro'ly exp. in all areas of Financial Costing and Control. Salary $8-10,000.
3. **COST ACCT'T./FINANCIAL ANALYST.** Salary $7,500-7,800.
4. **SALESMAN**—young, energetic, hardworking, good appearance. $80-100 per week.
5. **OFFICE MGR./ACCOUNTANT.** Open.

Address enquiries to:

J. K. THOMAS & COMPANY
Placement Consultants & Psychological Services
46 Avenue Road, Toronto ● WAlnut 3-9805

EXCEPTIONAL OPPORTUNITY

To become associated with nationally known men. Executive required with administrative and financial experience to join the staff of a recently organized enterprise in the field of Canadian business development, located in Toronto.

Excellent starting salary and profit participation.

For confidential interview reply to Box 888, The Financial Post, Toronto.

CHIEF ACCOUNTANT REQUIRED

Large and progressive manufacturers in Quebec City, doing business throughout Canada, require bilingual chartered accountant to act as Chief Accountant and Office Manager.

The position offers excellent promotion opportunities —five-day week—pension fund and other social securities—salary $7,000 or over—according to qualifications and ability.

Applicant must be in the age range 30 to 35 years and be prepared to reside in Quebec City.

Write fully in confidence to the box number given below.

Our own staff know of this advertisement.

Box 889, The Financial Post, Toronto

THE CORPORATION OF THE DISTRICT OF KITIMAT
REQUIRES

ECONOMIC PLANNER: To undertake long range planning studies, and establish a capital budget programme.
QUALIFICATIONS: Degree in economics, sociology, planning or allied fields, with at least three years practical experience.
SALARY: $530 to $660 per month, depending on experience.

ARCHITECT PLANNER: Qualifications: Degree in architecture with some practical experience in Town Planning.
SALARY: $530-$660 per month, depending on experience.

LANDSCAPE ARCHITECT: Qualifications: Degree in landscape architecture with at least two years practical experience.
SALARY: $480 to $590 per month depending on experience.

Reply, with full information as to education, experience, personal data and references to:

The Corporation of the District of Kitimat, Box 400,
Nechako Postal Station,
Kitimat, British Columbia.

NOTE: Kitimat is a new town located on the northern coast of British Columbia, and is being developed in accordance with a "Master Plan." Successful applicants will have the unusual opportunity of seeing the results of their work in a relatively short period of time.

PROFESSIONAL ENGINEER WITH MANUFACTURING AND MARKETING EXPERIENCE, SEEKS CHALLENGING SITUATION

Age 29, experienced in Sales, manufacturing cost analysis, all phases of Ind. Eng., Purchasing, Advertising and Marketing Plan formulation. Fluent Writer and Speaker. High Multi-Aptitude abilities.

Box 894, The Financial Post, Toronto

Exceptional Opportunity for

Superintendent of Agencies

A quality American Insurance Company with Canadian Head Office in Ontario, writing non-cancellable A&S, Life and Group, has an opening for a man to take charge of the supervision and development of Canadian branches.

THIS IS WHAT WE OFFER YOU. A chance to get in on the ground floor and grow with one of Canada's most rapidly expanding insurance operations. While relatively new in Canada, we are well established, have a unique competitive position and a tremendous growth potential. This is the top agency position in our Canadian organization with a starting salary in five figures.

THIS IS WHAT WE WANT. A forceful, ambitious and energetic man who knows he can supervise and develop men on the managerial level. Under 45 years af age, he will preferably have had a background in insurance sales or management as well as Head Office agency experience.

We sincerely believe this to be an outstanding opportunity. If you are interested, let us hear from you. Your confidence will be fully respected.

Box 897, The Financial Post, Toronto

CONTROLLER

Required by large provincial Co-operative Organization doing a wholesaling, marketing and processing volume of over $60 million annually. Toronto location. Duties involve control of accounting, credit, payroll, systems, office facilities, budgeting, analyzing and reporting.

Applicants must have had several years of related administrative experience and be able to work harmoniously on a senior executive team. Some agricultural and Co-operative background or understanding desirable.

Company provides many employee benefits including pension and sharing of earnings. Salary commensurate with duties. Please reply in complete confidence stating full details to

Personnel Manager
United Co-operatives of Ontario
35 Oak Street, Weston

SALES MANAGER

Manufacturer and distributor of nationally known engineered products used in the mining, oil, municipal and related fields requires a Sales Manager with administrative experience.

This position calls for a person who has the ability and experience to plan and direct the Company's sales and advertising activities across Canada and to train and supervise a small technical sales staff.

Applicants should have University training in engineering or business administration or equivalent. Age 35-45.

Salary commensurate with experience.

Replies in writing should state age, education, experience, present salary and be addressed to:

BOX 892,
THE FINANCIAL POST, TORONTO

Please include photograph. Our staff is aware of this advertisement. Replies confidential.

THE UNIVERSITY OF ALBERTA
announces openings for two positions
TWO CASE WRITERS
(Lecturer Rank)
IN BUSINESS ADMINISTRATION

Two men are needed with a practical and educational background in business administration. They must have had actual experience in business and be familiar with various methods of instruction, including the use of teaching cases and other educational materials.

New courses will be developed and offered in several cities and towns in Alberta. Educational programmes in business administration are being planned for undergraduate students, graduate students and men and women in business and industry. Ample opportunity for those selected to exercise their imagination, initiative and ingenuity, and also to enjoy many difficult but stimulating experiences. Applicants should be willing to work hard—often under pressure—in a variety of new situations.

Appointments may be made, effective 1st August, 1957.

Apply in writing, before 1st July, 1957, giving qualifications to:

THE DIRECTOR,
School of Commerce,
University of Alberta,
Edmonton, Alberta.

Thomson Newspapers

meet the challenge of change and growth

with EXPANSION and MODERNIZATION

Everybody's in a hurry to get his newspaper. Every day millions of Canadians eagerly await delivery of the newspaper published in their community.

To print bigger, better newspapers faster, new equipment, new buildings and additions have been added to publishing facilities, making Thomson Newspapers' plants among the most modern and progressive on the continent. During the past few years new plants were completed for the Charlottetown Guardian, Moose Jaw Times-Herald, Galt Reporter, Guelph Mercury, Port Arthur News-Chronicle and the Welland-Port Colborne Tribune. Extensive alterations and additions have been completed at the Nanaimo Free Press, Kirkland Lake Northern Daily News, Orillia Packet and Times and Sarnia Observer. New plants are projected for the near future for The Kelowna Courier, Oakville Journal, Oshawa Times-Gazette, Sudbury Star, Penticton Herald, and the Woodstock Sentinel-Review.

Mechanical improvement and expansion is a continuing process on all Thomson Newspapers. Colour printing facilities have been added to almost all of these newspapers in recent years and will be added to the others soon.

Hundreds of typesetting machines, dozens of huge presses and scores of trucks all combine with the other physical facilities to bring to Thomson Newspapers' readers the latest news, pictures, features and advertising.

The wide-scale rebuilding and strengthening is but part of a far-reaching program. In every one of twenty-two Canadian centres where Thomson Newspapers are published, aggressive journalistic principles coupled with expansion and modernization have increased local reader and advertiser interest. As well as a physical change and growth, Thomson Newspapers are dedicated to highest attainable standards of community service. All this reflects enthusiastic expectation. More audibly, people are saying to their neighbours with a new sense of pride, "That's my newspaper".

Thomson Newspapers

Nanaimo	*The Daily Free Press*	Sarnia	*The Observer*	Sudbury	*The Daily Star*	Oakville	*The Journal*
Kelowna	*The Courier*	Chatham	*The Daily News*	Timmins	*The Daily Press*	Oshawa	*The Times-Gazette*
Penticton	*The Herald*	Woodstock	*The Sentinel-Review*	Kirkland Lake	*The Northern Daily News*	Quebec	*The Chronicle-Telegraph*
Prince Albert	*The Daily Herald*	Galt	*The Evening Reporter*	Pembroke	*The Daily Observer*	Charlottetown	*The Guardian*
Moose Jaw	*The Times-Herald*	Guelph	*The Daily Mercury*	Orillia	*The Daily Packet & Times*	*and associated papers in the United Kingdom & Florida.*	
Port Arthur	*The News-Chronicle*	Welland	*The Evening Tribune*	Brampton	*The Conservator*		

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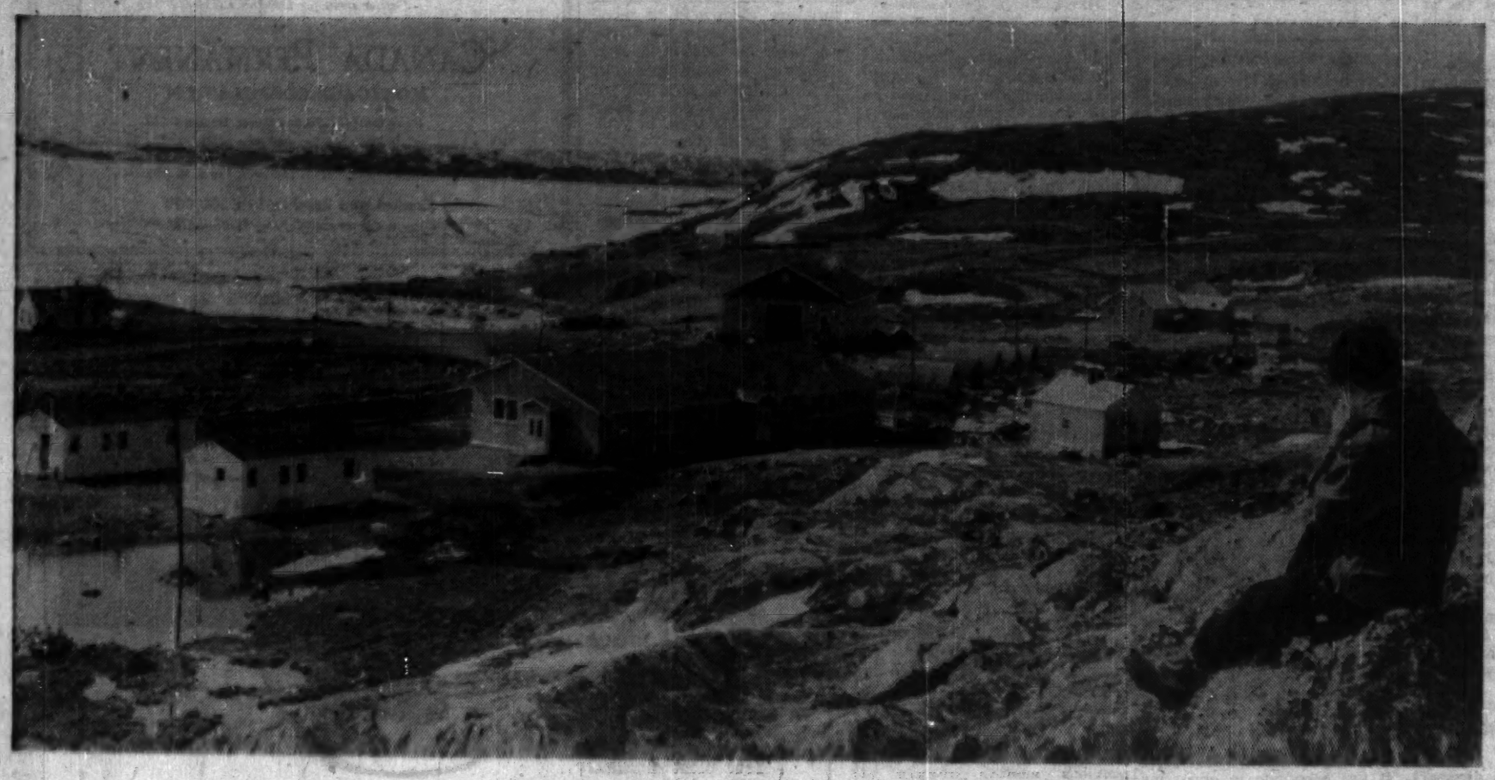
Toronto, *44 King St. W.* Montreal, *225 Shell Tower Bldg.* Vancouver, *1128 W. Georgia St.* London, Eng., *63 Fleet St. E.C. 4*

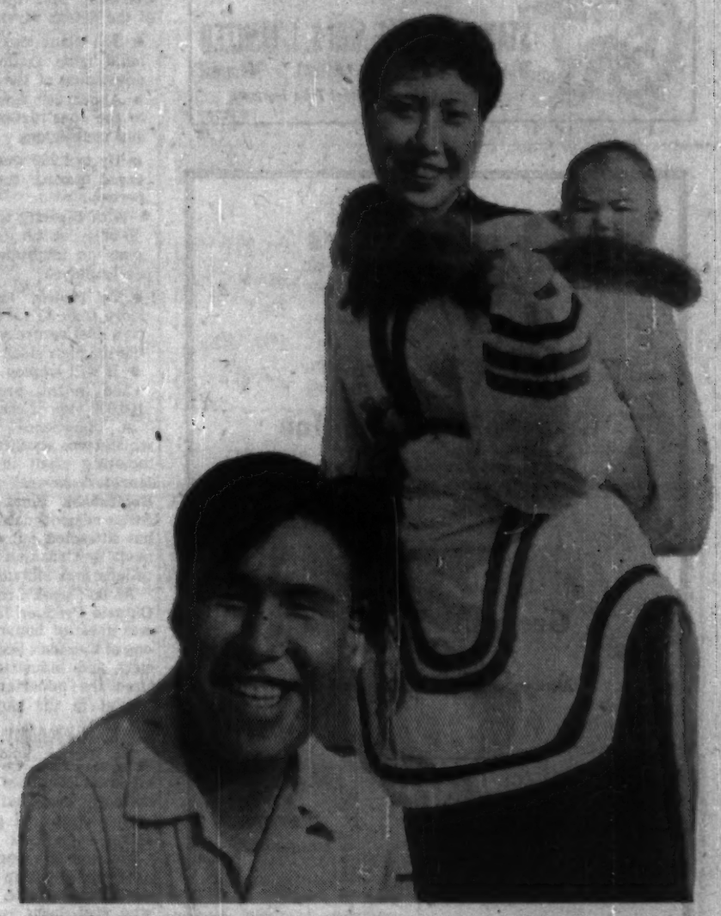
U. S. Representatives—*Johnson, Kent, Gavin & Sinding, Inc., 250 Park Ave., New York 17, N.Y.*

The Financial Post

Vol. LI | Member of Audit Bureau of Circulations | Publication Office: Toronto, June 22, 1957 | Twenty Cents an issue, Six Dollars a Year | No. 25

Canada's 'New North': Your New Market?





PURCHASING POWER: Tikivik is 20, and he has a wife and a new baby. Today he earns $200 a month. He already owns a $150 record player. His baby will grow up to an even higher living standard.

This ice-and-rock-bordered townsite is the Arctic village of Frobisher Bay, staging point between the Stone Age and the Air Era.

In settlements like this lie future markets for your goods, future pools of production skillpower.

In settlements like this 12,000 Eskimos are learning Canadian civilization and Canadian skills. Already they are starting to earn Canadian wages.

Business, ancient and modern, is on the boom at Frobisher Bay.

Here's the story of the new competition, the new opportunities.

By JOHN P. MACLEAN

FROBISHER BAY (Staff) — Charlie Sugiyuktuk managed to wipe his brow and grin at me without missing a step in his wild Eskimo dance.

It was at the 45-min. mark of a non-stop, hour-long Eskimo hoedown. The dance was a double-quick type of square dance, donated to Eskimo culture long ago by some wandering Scot.

There were 40 of us: Poker-faced girl-children skipping nimbly if inaccurately through the accordion-paced steps and white-tufted seal hunters who were half-timing on the beat to save some energy for the three-mile hike home in the morning.

Probably Charlie grinned at me because we were having ourselves a ball.

But maybe part of the reason was the beat-up way I looked. My shirt was gummed wetly to my back and my tie was flipping wildly.

The crease had long gone out of my pants and my shoes were getting a hard time from the rubber boots of my whalebone-tough bobbysoxer partner.

I returned the grin. Not only because of the fun, but because in that new two-room schoolhouse built by the Department of Northern Affairs and National Resources just 200 miles from the Arctic Circle it came to me that here will be a successful mingling of two opposite ways of life.

The 12,000 Sugiyuktuks and Simonees and Askishous and Numoonis (Numooni is a button-cute Second Grade) are facing civilization in their Northwest Territories.

It's the civilization of **Eaton's** catalogue and the drumming DEW line helicopter, of the $1.65-an-hour minimum of **Foundation Co.** and the Criminal Code of Canada, of the busy bulldozer and the repeating rifle.

These Eskimos are an adaptable people with a mechanical bent. It's said you can take an Eskimo child and a white child, show both at once how to strip apart a common alarm clock, then watch the Eskimo child put it back together again much faster than the white child.

They have an aggressive, understanding and hard-working Territories Government working on their behalf in the nine-member Council (FP, Feb. 12). It has just agreed to a better-than-the-provinces-get financial agreement offered by the federal government.

And they have been started on this road to Canadian ways without the reservation system which has proved a major stumbling block in the path of our Indians.

But like Baffin Island Highway No. 1 (and only), which runs a scant three miles from base camp to this new townsite, the road to the 20th century is still too short. Route is either by sea, between July 15 and mid-fall when supply ships arrive, or by air through DEW line or RCAF aircraft.

Too, along this road there are potholes needing filling (health) boulders to be detoured (unemployment) and hills to be climbed (the English language).

So what's it all add up to? No six-day visitor will get the correct total, but here are things I counted — in no particular order:

● The long days.

I took along a flashlight because I knew enough not to expect streetlights. It might as well have stayed in my car; night didn't come. Even in early June, at 3 a.m. you can read a newspaper.

At midnight I saw Eskimo tots still playing in a bouldered field. Our southern be-home-at-dark edict can't apply. Adults, as well as children, usually sleep when they're tired.

One of the biggest unused accessories on a truck in this country, at least this time of year, is the set of headlights. Parking lights are used around the base, they say, by newcomers.

● The weather.

This is the country where that quip almost applies: 11 months of winter and one month of poor skiing. It's finally spring; water outside doesn't freeze any more.

You can still fish through the ice on the bay as the Eskimos do here for Arctic char — while the huskies howl like the banshees in a Sunday midnight movie thriller — because the first supply ships won't break through for weeks.

Winds this time of year are light. But in the winter there are normally at least five storms of more than 65 mph.

Direction of the wind is remarkably constant, usually from the north, and it's the belief here that this is how the Eskimo gets his bearings as he travels dead-accurately over astonishingly large areas of unchartered territory.

● The people.

Eskimos bring their children up differently; they give them "the run of the house." A father wouldn't think of spanking his child because, say the experts, he'd be rebuking a part of himself.

Children, therefore, have the upper hand until about age 14.

About 14, a youth can expect father's tolerance to wear thin. This apparently is a sign to the youngster to start thinking about life on his own — and the prospect of putting up with the shenanigans of still another generation for 14 years.

The dividing line between husbands' and wives' spheres of influence is a simple one: Inside it's her's, outside it's his.

She can give away the establishment's best pot — Eskimos are a great help-your-neighbor people—and he won't say anything. On the other hand, he doesn't get nagged for not bringing home enough bacon.

Cupid here happens to be a matriarch of about 80. The word is that she pairs off the good hunters with the good homemakers, the medium with the medium and the poor with the poor. And it works out, it seems to me.

The practice of giving our children Christian names is just coming into vogue here. Till now, an Eskimo child has been given just one name. (Because the RCMP corporal here knows much better which child belongs to which family, he handles the Family Allowance cheques, not the postmaster at base.)

Women still take a back seat to the men. I saw this most clearly when the Eskimo population came up to examine the mace carved by Dorset Eskimos at the end of one Council session. The men queued past first.

● Eskimo skillpower.

For a winter or two now, Eskimos have worked on DEW line sites. With their remarkable mechanical bent some men have already been trained as bull-dozer operators and truck drivers; and they can do their own minor repairs.

It's expected that before long Eskimos will be trained and working as full-fledged diesel mechanics.

Department of Northern Affairs is aware of the Eskimo's potential. Indeed, that's one of the chief reasons behind the establishment of the townsite here. Eskimos who return from hospitalization — usually in sanatoria in large Canadian cities—will get their strength back in this settlement.

And the betting is that after a few months of modern life (two-bedroom wood cabins with oil stove and electricity) many of them will have learned enough in such environments as the Northern Affairs vehicle workshop to qualify for tradesmen's jobs on building projects dotting this north.

One such is Tikivik.

He's a personable young man in his 20s, married, with a new baby. Back recently from two years TB treatment, he works as an orderly in the two-nurse hospital here ($200 a month), has a passable command of English and a $150 record player among his assets.

Nurse in charge, by the way, is Ann Webster. She was adopted soon after birth by an Anglican archdeacon of the north, is a vivacious graduate nurse who ranked near the top of her class.

But these are exceptions so far. The reason: Only a handful of the 2,700 Eskimos on Baffin Island can speak or understand English.

This is why Northern Affairs and the Territorial Council have embarked on an ambitious school program. (The Territories' biggest single expense in the next five years will be on education, more than $600,000 a year.)

The school here, now just finishing its first year of operation, has been looking after up to a possible 125 elementary grade children, has just gone on two shifts a day to accommodate the 50 or so additional children who have come in with their parents for the summer season at the tent camp near this townsite.

Education, however, despite the best efforts of the two teachers here, is on a hit-or-miss basis. Cold spells in winter (to 65 below) play havoc with attendance of children of parents living in the old Eskimo village near base camp.

Principal David Wilson, an energetic and very impressive man whose sons take correspondence courses but are adding the Eskimo language as an extra, says the toughest thing is convincing the moppets they actually have a desk and pencils and books of their own.

And, he says, a couple of days absence sometimes means starting all over on the curriculum emphasizing the three Rs.

A small choir of toddlers opened this "Parliament" with a very fair rendering of God Save The Queen.

● Eskimo economy.

The Eskimo is no slouch when it comes to doing business. He has already caused the **Hudson's Bay Co.** to pull up its socks, albeit in a minor way.

HBC's young manager, at 28 a veteran of more than 10 years experience, who has three Scottish-born youths working for him as clerks (all four speak Eskimo), is facing competition from Eaton's and **Simpsons-Sears** mail-order catalogues.

A surprising number of domestic capital goods are so ordered, along with the usual assortment of blue jeans and chic-looking ladies' dresses.

HBC, at least in this branch, knows where it stands with its native customers —it is also the bank.

Many Eskimos have current accounts and a dozen have savings accounts (2% interest) with up to $1,500 in them. Manager Gordon Rennie must thus have a pretty fair idea of how much of the Eskimo income is spent in his branch.

Prices probably average about one third higher than in major Canadian cities because of freight cost. Markup is kept low despite lack of real competition on key items like hunting rifles, and sales are facilitated by doing business to the nearest nickel (cigarettes: 40c).

Unlike the Indian of the North, the Eskimo won't automatically pay the asking price when he wants something badly. And on the basis of talks with DEW line workers and Eskimo experts, he doesn't carelessly take the elastic off his roll when it gets thick.

● Liquor.

At its Ottawa meeting this winter, the Council thrashed out what some consider may be the Eskimo's biggest hazard in civilization. A compromise was worked out between wets and drys on the Council. The agreement: Beer to be sold in selected northern pubs.

But there's no outlet here, and so drinking is no problem.

The situation works a certain hardship on the small white population. There is both beer and liquor in the RCAF mess at the base, but white civilians are infrequent visitors and so even the most casual imbibers often look parched. There is none to spare, obviously, for educating the Eskimo palate.

● The Outlook.

The view here is obscured by the distance from Ottawa red tape and clouded in addition by the every-night-of-the-week social activity always prevalent in a pioneer community. But it looks good to people here.

I'm told iron mining is only a couple of years away, that the CBC is going to figure out some way to beam in programs the way the Russians have, that 30 more buildings are going up this summer to go with the 55 now standing, that the Hudson's Bay Co. will double its business again this year to $500,000 worth.

All this and brand new hot water showers with a dandy spray. And plumbing soon.

No wonder Charlie Sugiyuktuk had a grin on his face.

BOSS MAN: Eskimos today work for men like Bert Fuller, DEW Line construction superintendent. Bert's company pays the Eskimos $1.65 an hr.

AIRBORNE PROSPERITY: Hans Pedersen will manage the Department of Transport's airfield at Frobisher this fall. Frobisherites hope the transpolar airline flights will land there.

BUSINESS COMPETITION: Gordon Rennie of the Hudson's Bay Co. says mail catalogues and faster transportation are giving the old company a run for the Eskimo dollar. Despite this, HBC will double its Frobisher business this year.

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260 Firms Help Build Cement Plant

What goes into the building of a new, multi-million dollar cement manufacturing plant?

Four such projects have been recently completed in Canada and two more are proceeding.

Last week, when more than 1,000 guests attended the official opening of the $30-million, 12-million bags a year cement plant of **St. Lawrence Cement Co.** at Clarkson, Ont., these were some of the details revealed:

- The plant took 12 months to build from ground-breaking to production of the first bag.
- About 260 firms contributed to the construction as suppliers and contractors.
- Up to 1,700 workers were engaged during the construction period.
- With capacity to produce over 10 bbls. per mh., the plant represents an investment of $150,000 per employee.
- To protect local amenities, more than $1 million was spent on a dust recovery system, and a 556 ft. high stack was built.
- It will employ about 150 men when in full production, burn 100,000 tons of coal a year.

St. Lawrence Cement Co., which owns another major manufacturing plant in Quebec, was launched several years ago by **Holderbank Financier S.A.**, the Swiss cement-making group, and has attracted substantial investment by Canadian banking institutions and individuals.

At last week's ceremony, when Ontario Premier Leslie M. Frost was guest of honor, E. P. Taylor, one of Canada's best known financiers and industrialists, emphasized the importance of foreign capital in the rapid growth of Canadian economy.

Mr. Taylor, who is a director of St. Lawrence Cement, said that all great countries had, in large measure, been built up in their earlier stages by foreign capital of the right kind.

This meant long-term permanent capital put up by individuals or corporations of high integrity who had been successful elsewhere in the business concerned.

R. G. FAIRBANKS

president, Fairbanks Soap Co., Toronto, has been elected president, Toilet Goods Manufacturers Association.

Manitoba's Crops Never Looked Better

From Our Own Correspondent

WINNIPEG—Crop prospects in Manitoba at mid-June were never more favorable.

Seldom have conditions been more satisfactory for seeding and only in isolated pockets has there been any delay and this because of wet land.

Barring extremes of weather, unusually dry or wet, present signs are for another good yield year for Manitoba farmers which carries with it the problem of more surplus grain and small delivery quotas.

The 1957 crop is in early, about 10 days in advance of last year, an advantage which reduces chances of rust damage.

Rust is unlikely to be a worry this crop year for two reasons:

It has been late in appearing in its areas of origin and only sparsely reported in the deep south.

Because grain seedings in Manitoba have been nearly all rust-resistant varieties. Nearly all the spring wheat sowings in Manitoba is the variety Selkirk, resistant to the strain 15B.

Germination of early and late sown grains has been good. Beneficial rains the first two weeks of June have improved soil surface conditions.

The season thus far has been cool and warmer weather would be welcome to hasten growth.

Crop Pattern Set

The crop pattern of the year is now established. A June 10 survey of the provincial agriculture department reports wheat acreage very slightly less than the 2,073,000 acres of 1956 and oat acreage from 7% to 8% below the 1,954,000 acre crop of last year.

The reduction in oats is offset by an increase of 8% to 10% in barley acreage of which there were 1,675,000 acres in 1956.

The flax acreage is about 5% more than the 808,000 acres seeded last year.

The department survey reports a growing interest in special crops, particularly in south central Manitoba where farmers have increased acreages of sunflowers, corn, peas, soybeans and rapeseed.

The contracted acreage for sugar beets is slightly down. About 23,600 acres are under contract with the **Manitoba Sugar Co.**

This is more than the 22,900 acres harvested last year but slightly less than the contracted acreage of 1956.

The damage to crops thus far is comparatively small. Grasshopper infestation is heavy in some areas but hatching has been delayed by cool weather.

The threatened crop districts are well prepared with materials and equipment for spraying and a limited amount has been done with good results.

The chief damage up to the present has been inflicted by the sweet clover weevil which is widespread with this type of crop.

Losses thus far have been confined mainly to second year growth.

Vancouver Dailies Combine Plants

Pacific Press Ltd. will publish both Vancouver's daily newspapers—the Province and the Sun, owned respectively by **Southam Co.**, Toronto, and **Sun Publishing Co.**, Vancouver.

Beginning June 17 the Province will switch over to a morning paper, leaving the evening field to the Sun.

Each paper will continue to exercise its own editorial, advertising, circulation and promotion activities.

The two papers have pooled their production facilities and other assets in the new company.

Plans call for erection of a new plant to house equipment of both papers.

One reason for pooling facilities was the large capital expenditures which each paper would have incurred had they continued separate publication, it is stated.

Southam Co. has paid Sun $3,850,000 under the transaction which involves only the newspaper assets of the Sun.

In addition to its half interest [redacted] in Pacific Press (stock and debentures amounting to $4,650,000) Sun Publishing's other assets total $5,971,000.

This includes the payment of $3,850,000 by Southam Co. and cash receivable and marketable securities of $690,000.

MacNab's Portfolio

A Managed Investment Account

Invested in 1944	$10,000
Account latest valuation	$38,410

Won't Shift Portfolio Now

MacNab's manager will continue to maintain a conservative attitude toward the stock market this year, as he feels selectivity will be important.

He will not change any of his client's holdings at present.

Says the manager:

The trend of the Canadian investment market has shown a considerable firmness despite the surprising result of the federal election. It seems that although Mr. Diefenbaker will form a government, an election will be held within the year to try to create a clear working majority in Parliament. This must have an important effect on the security markets.

I see no reason to disturb any securities in your account at the present time, but will continue to maintain a conservative attitude toward the stock market in 1957, as I feel that this will be a year where selectivity will count.

Industries which apparently are best situated to prosper this year would be the petroleum, natural gas, and oil and gas pipeline, public utilities — both gas and electric; food stocks and department stores; banks and trust companies.

The pulp and paper industry is now in a position where costs are rising and its principal market is in the U. S. The recent increase in the cost of newsprint would appear to offset the rising costs for the time being. Therefore, I have decided to hold them in your account for income.

The base metal industry appears to be in a very vulnerable position, partly due to the proposed U. S. tariff changes. That appears to be what is causing a weakness in both **Consolidated Mining & Smelting** and **Noranda**, which are held in your account.

The price of lead and zinc has declined, and the obvious effect will be to close down the marginal producers and benefit the larger companies with large cash reserves.

Bond Yield Average Rises

Average yield of 40 bonds as compiled by **McLeod, Young, Weir & Co.** on basis of prices at June 1, 1957 was 5.27% as compared to previous month's average of 5.22%.

Provincial, municipal, public utility and industrial groups rose 0.06%, 0.05%, 0.02% and 0.08% respectively. No substitutions were made during May.

Here is yield by various groups:

	Jun. 1 1957	May 1 1957	Dec. 3 1956	Jun. 1 1956
	%	%	%	%
10 Provincials ..	5.02	4.96	4.99	4.05
10 Municipals ..	5.53	5.48	5.37	4.53
10 Pub. utilities	5.17	5.15	5.01	4.19
10 Industrials ..	5.38	5.30	5.21	4.44
40 Bond Aver..	5.27	5.22	5.15	4.30
Average Maturity:				
Years	14	14	11	12
Months	...	1	8	2
Canada 3¼% 1/6/74/76	4.22	4.00	3.97	3.51

4 3/4 % *on Canada Permanent Debentures*

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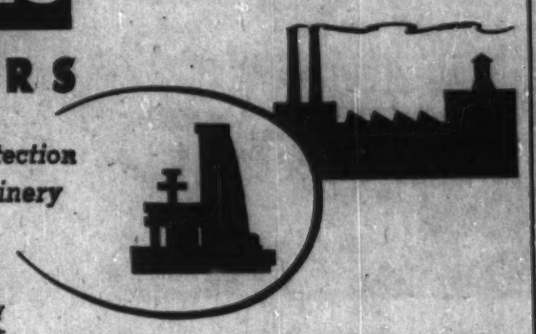

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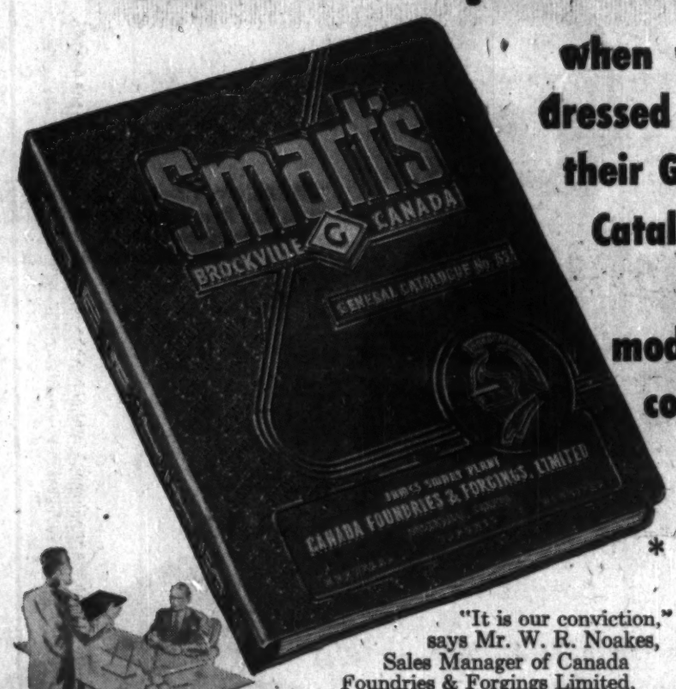

when we dressed up their General Catalogue with modernized covers.

"It is our conviction," says Mr. W. R. Noakes, Sales Manager of Canada Foundries & Forgings Limited, Brockville . . . "that our salesmen should always feel proud of their Company and the products they are selling.

With this in mind, we discarded the standard black covers of our General Catalogue and adopted modern, attractively-coloured bindings with a smart arrangement of title and trademark.

Our salesmen were enthusiastic about the change and said that the new covers helped them to present their selling catalogue with more confidence. We were gratified that so simple an innovation should prove so effective."

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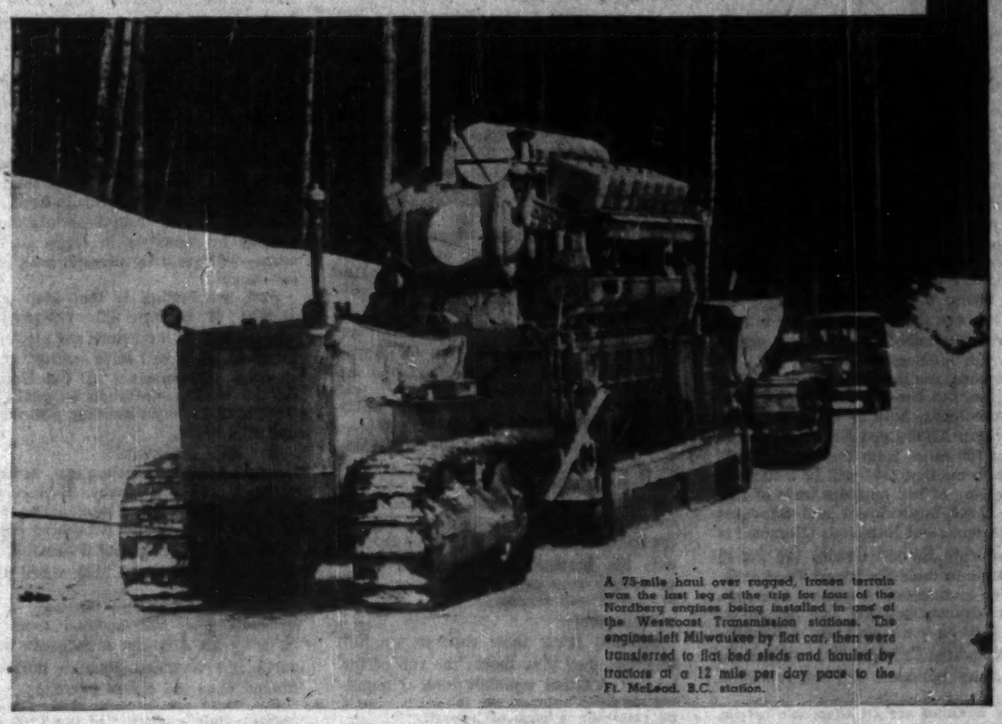

A 75-mile haul over rugged, frozen terrain was the last leg of the trip for four of the Nordberg engines being installed in one of the Westcoast Transmission stations. The engines left Milwaukee by flat car, then were transferred to flat bed sleds and hauled by tractors at a 12 mile per day pace to the Ft. McLeod, B.C. station.

11 Nordberg Supairthermal® Gas Engines to Power Compressor Stations for WESTCOAST TRANSMISSION CO., LTD.

Westcoast Transmission, Canada's first large-diameter gas pipeline, is expected to have gas flowing by fall, from the Peace River area of Alberta and British Columbia to the international border near Sumas, Washington.

Power for three of the compressor stations on this new 650-mile, 30" line will be furnished by eleven Nordberg 4-cycle V-type Supairthermal spark-ignition gas engines, rated 3550 bhp at 500 rpm. Each of these powerful, compact 16-cylinder engines are direct-connected to an integral 10 to 1 Nordberg speed increasing gear, to drive a DeLaval centrifugal gas compressor at 5000 rpm to produce the required pipeline "push."

These engines for Westcoast Transmission are typical of the increasing number of Nordberg Supairthermal gas engines being ordered and installed by major gas transmission companies . . . who have specified these engines on the basis of lower cost per installed horsepower, lower operating cost, and their ability to handle variations in volume and compression ratios with high efficiency at variable speeds.

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Canadian Resins Adds New Lines

Canadian Resins & Chemicals Ltd. has signed an agreement with Consolidated Dyestuffs & Chemicals Ltd., Montreal, whereby it becomes the latter company's exclusive sales agent in Canada for certain products manufactured by **Badische Anilin & Soda Fabrik A. G.**, Ludwigshafen am Rhein, one of Germany's leading chemical producers.

The agreement covers chemicals for the plastics and paint industries.

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Listed below are some well known Canadian organizations using xerography to speed paperwork and cut costs in a wide variety of systems and general duplicating applications.

Xerography copies anything written, printed, typed or drawn in same, enlarged or reduced size. Copies onto all types of masters—paper, metal, spirit, translucent—for duplicating. Copies line and halftone subjects.

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International Civil Aviation Organization
Hydro-Electric Power Commission of Ontario
National Research Council
New Brunswick Telephone Company Limited
Northwestern Utilities, Limited
Polymer Corporation Limited
Quebec Hydro-Electric Commission
Saskatchewan Power Corporation

The above are among the many Canadian organizations using xerography to copy onto paper masters for duplicating in systems applications, such as Progressive Report Writing, Production Control Writing, etc., in addition to general duplicating applications.

Xerography (ze-rog-ra-fee) is a dry, electrostatic copying process. It's a direct positive process—no negative is required. Using XeroX copying equipment, anything typed, printed, written or drawn can be copied onto masters up to 8½"x13".

Letters, engineering drawings, office forms, maps, charts, manuals, revised price lists, directories, etc., can be copied in a few minutes onto offset paper masters or presensitized, positive-working offset metal plates, for runoff of multiple copies on an offset duplicator.

For use in diazo type machines, transluscent intermediates can be made from original subjects in the same speedy way.

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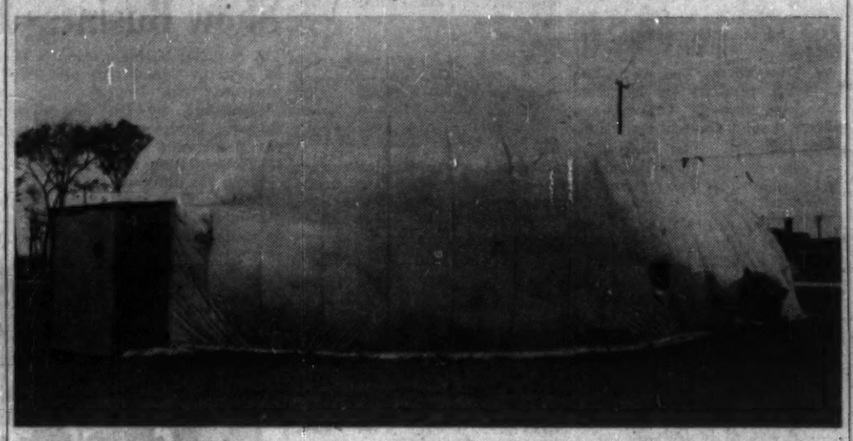

PRODUCE A BUILDING, for storage or shelter.

Here's Building Built on Air

MONTREAL (Staff) — If four men build an "Airhouse" in one hour that is 80 ft. long, 40 ft. wide and 20 ft. high, what will it hold?

Answer: Two million lb. of packaged goods in a portable shelter that contains 42,000 ft. of storage space entirely supported by air.

The Airhouse is fabricated by **Gourock-Bridgport Ltd.** and made of Fiberthin, described as a patented light, tough, neoprene-coated **Du Pont** nylon fabric manufactured by **Dominion Rubber Co.** Mechanical Goods Division, Montreal.

The purpose: For low cost, low maintenance, temporary shelter employing what is said to be an entirely new principle in building construction in which air at extremely low pressure supports the structure.

The building weighs about 500 lb., plus door and blower, and is light and compact enough to carry in the back seat of a station wagon.

Strong enough to withstand high velocity winds, its roof will take a heavy snow load.

Fiberthin is woven in such a way that when coated with a synthetic rubber or plastic material it is extremely light and has great strength and tear resistance.

It is also used as boat and engine covers, tents, fire fighters' and protective clothing and truck tarpaulins.

Lignosol Saves Railway From Frost Heave Damage

MONTREAL (Staff)—Along 34 stretches of road which heaved each spring, CNR section gangs injected lignosol, a by-product of sulphite pulp manufacturing, at six foot intervals over a period of three years.

Using a jack hammer, they first drove injection pipes four or five ft. into the ground, just outside the ties.

The depth was adjusted so the treatment would be applied between the frost line and the ground water level, and lignosol was pumped into each of the pipes until it broke through to the surface of the roadbed.

The result: Substantial cost savings in the majority of cases. General savings are estimated at several times the initial cost of the lignosol treatment.

"We have now proved conclusively that railway roadbeds treated in this way are much less susceptible to frost heaving," President F. T. Atkinson of **Lignosol Chemicals Ltd.**, jointly owned by **Anglo-Newfoundland Development Co.** and **Anglo-Canadian Pulp & Paper Co.** says.

"In some cases the heaving can be eliminated entirely, and in others it can be drastically reduced."

His expectations: The same treatment can be adapted to eliminate or reduce heaving on highways and city streets.

That's a problem which costs Canadian taxpayers millions of dollars and is now said to have been solved by chemists from experiments conducted over the past several years on the roadbeds of Canada's railways.

Five Years' Testing

For the past five years chemists of Lignosol Chemicals have been working with engineers of the CNR on an experimental basis.

The CNR has now decided to expand its treatment program and fully expects it to result in worthwhile savings in maintenance costs, Atkinson says.

"We are confident that experimental work will show it to be equally effective on highways."

If applied to the thousands of miles of North American railways, highways and city streets on which there is a frost problem, Atkinson says, savings would amount to millions of dollars annually.

In addition, it appears that a section injected with lignosol would not need to be treated a second time on the basis of results to date.

The problem has been known for years:

Frost heaves result from freezing not of moisture present initially in the soil but of water brought up to the frost line by capillary action.

This movement creates layers of ice at the frost line, thickness of which depends on:

—Distance from frost line to the ground water line.
—Grain size distribution of soil.
—Permeability.

No Movement

Ice layers do not form in sand or clean gravel because there is practically no capillary movement of moisture.

In clay the movement is very slow, a fact preventing formation of thick layers.

But capillary moisture moves rapidly through soils whose grain distribution lies midway between sand and clay.

In silty sands and silt soils, winter brings the thickest layers of ice and hence the worst heaves.

Weston Expects Record Year

George Weston Ltd., Toronto, expects that this year's total pro forma earnings — including all subsidiaries and affiliates — will be at least 15% greater than the $4.75 per share forecast at mid-April.

Earnings to date this year, calculated on the broadened base of its interests, are well ahead of the corresponding period last year, says President George C. Metcalf.

Profit prospects for the remaining months of the year continue to be favorable in every phase of operations. Indications are that company will have another record year for sales and earnings.

Company has declared an increase in dividends payable on the class A and B shares, raising the current annual dividend rate to 50c per share.

First quarterly payment at the new rate will be the July 1 payment of 12½c per A and B share, compared with the previous rate of 7½c. Payment will be made to shareholders of record June 10.

Net profit of Weston and subsidiary companies for this year's first quarter was 25% higher than for same period last year, it was announced at the recent annual meeting in Toronto.

It was also announced that interim reports will be issued periodically to shareholders indicating the current trend of earnings on a pro forma annual basis.

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Building Trade Materials Boom

Canada's building materials manufacturers are getting the reward for their adaptability:

- In many cases, sales within the last month or two have taken a definite upswing. Many are still below last year's level but others have climbed above it within the last three months after a near-disastrous January and February.
- Others are just about level or slightly under, except where the product is so heavily dependent on housing that a switch takes major promotion and introduction of new products.

These latter steps are being taken but real effects won't be apparent for a month or so.

- In almost every case, manufacturers, behind or ahead of last year in sales, report that there are definite signs of the market opening up.

Signs of the upturn came in March last. That was when materials like cement, concrete blocks, ready-mix concrete, clay brick, and asphalt roofing shingles began edging sales for the first time above same month 1956.

Hardboard producers felt the trend in April when for the first time this year both home and export shipments topped the same month last year and pushed the four-month sales total ahead of the 1956 period.

Clay drain tile, asphalt and vinyl-asbestos floor tiles, asphalt smooth surfaced rolls and paints, have been scoring in the sales field each month this year.

Here are some sample comments from various manufacturers:

Concrete Bricks:

We are beginning to feel the upward swing. We felt it first in May and it has continued into this month but we are still running about 35% behind the same period last year in sales. The industry generally seems to be aiming more heavily now at the industrial, commercial and institutional construction fields.

Asphalt:

The industry is down to date about 11.2% as against a year ago in roofing shingles but things are getting livelier. In roll roofing, we are up slightly over a year ago while built-up roofing is about the same. We are catering more for the major structure fields but competition is sticky with everybody doing the same thing and the cash value isn't there.

Asphalt is one of the major ingredients in our roads and highways in Canada. This will be another record roadbuilding year. We will get our share of the approximately 20% extra over 1956 which governments plan to spend for this purpose in the current year.

Clay Brick:

Total sales in the first three months of this year in Canada are about a third behind the same period in 1956 across the country but in March were about equal with March last year. Now the market is opening up a bit and it's not all seasonal. April and May were better than we'd expected. We are going in much more for selling to major construction projects and, while we're still down in the residential field, our sales in industrial, commercial and other major building fields were ahead in March and April of the same months a year ago.

Cement:

One major manufacturer in eastern Canada declares that if he had another kiln operating, he could sell all its output. Conditions are more competitive and harder in Ontario because of the 100% increase in production capacity in the last two years, but there is a bigger market there this year than last and we believe that will continue, even after the Seaway needs have begun to taper off as is expected next year. This is to be a record roadbuilding year and we expect more cement will be used for this purpose.

Gypsum:

As in most other building material fields, there are going to be considerable ups and downs in sales but we feel the end of the year will see us not too far behind last year because of new products and new merchandising methods aiming at broader markets. Wallboard shipments are just a little behind last year's figure for this period a year ago and sales in March were about equal with March, 1956. But lath has fallen off considerably for several reasons and shows few signs of picking up.

Paints, etc.:

This is a wide field and the sales fortunes of various items have differed considerably this year. But on dollar volume of sales we have managed to maintain a slight lead over last year across the country, though the sales picture varies from area to area.

Building Materials

	Sales March	% ch. fr. Mar. '56
Cement (mill. bbls.)	1.8	00.0
Concrete Bricks (mill.)	4.3	—12.3
Concrete Blocks (mill.)	5.75	+7.7
Concrete Pipe, Tile ('000 tons)	21.0	—28.9
Readymix Concrete (cu. yds.)	249.3	+4.4
Clay Bricks (mill.)	32.5	+0.3
Clay Struc. Tile (tons)	18,161	+19.0
Clay Drain Tile ('000)	2.2	+46.7
Asphalt Floor Tiles (mill. sq. ft.)	1.8	+12.5
Vinyl-Asb. Tiles (mill. sq. ft.)	1.3	+30.0
Asphalt Shingles (squares)	177,061	+54.5
Asphalt Shingles (squares over 210 lb.)	111,702	+99.4
Rigid Insulating Brd. (mill. sq. ft.)	19.4	—29.5
Gypsum Wallboard (mill. sq. ft.)	23.1	—2.1
Gypsum Lath (mill. sq. ft.)	21.2	—30.5
Paints, etc. (dollar value)	$10.2	+3.0

Airlines Rush To Get Business Following ATB Route Decision

OTTAWA (Staff) — A new drive for business by airlines in the rapidly developing north of eastern Canada will be one of the key results of the air transport board's decisions on new routes.

The reason: The airlines know immediate prospects for profit aren't great, but they know too that the foot-in-the-door now will mean money in the bank in the future.

The scramble began more than a year ago when aggressive **Maritime Central Airways** prodded its child, **Mont Laurier Aviation**, into applying for additional air routes.

ATB held hearings in Montreal this March, and from the large assortment of applications made these detailed decisions:

1. Mont Laurier Aviation, operating from Dorval, will serve nearby Passe Dangereuse, and add to its present northern terminal at Fort Chimo: Leaf Bay, Hopes Advance Bay, Joubin Lake, Payne Bay (Toms River) and end at Frobisher Bay on Baffin Island. License will be Class 3 — irregular service.

Its application to serve in addition; Janine Lake, Wabush Lake, Ross Bay, and Schefferville was denied.

2. Northern wings will operate a Class 3 service from a base at Sept Isles and serve Cartier (Barbel Lake), Peppler, Midway, Mount Wright and Carol in North-central Quebec.

Big advantage will be to mining which will need soon to pay for only part of an aircraft's services.

Its application to serve Schefferville was also denied.

3. **Wheeler Air Lines** will base at Val d'Or and serve Great Whale on Hudson's Bay.

This is becoming a mining area, is already a centre for Mid-Canada Line activity.

Its application to base at Val d'Or, Serve Chibougamau was denied.

4. **TransAir** will operate a Class 2 (fairly regular) service from Montreal through Ottawa and Weenusk and Churchill on Hudson's Bay.

It will not be allowed to carry Ottawa-Montreal traffic (in either direction).

It will operate a Class 3 service from Churchill to Coral Harbor on Baffin Island.

Its application to serve Fox and Resolute in the Northwest Territories was denied.

Left out in this round of license-granting were **Dorval Air Transport** and **Quebecair**, both of which applied for similar additional routes.

ATB denied to Dorval:

—Class 3 from base at Montreal through Val d'Or (no Montreal-Val d'Or traffic) to serve Chibougamau, Great Whale, Fort Chimo, Coral Harbor, Hall Lake and Frobisher Bay;

—Class 3 from Montreal through Val d'Or to Cape Henrietta Maria, Weenusk and Churchill;

—Class 3 from Montreal serving Schefferville and Goose Bay. (The air industry believes that Dorval is well off out of this one, because traffic between Schefferville and Goose Bay would probably be negligible.)

ATB denied to Quebecair:

—Class 2 service which would have added Point Wabush to its Sept Isles-Schefferville run;

—Class 2 service to serve Rimouski, Mont Joli and Lake Barbel.

ATB denied to **Notre Dame Air Transport** a Class 5 (charter on contract) license to transport laborers and supplies from Montreal to the DEW and Mid-Canada lines.

Auto Production

	Wk. End. June 15	To date 1957	To date 1956
Am. Motors:			
Rambler	100	1,466	....
Total cars	100	1,466	*3,570
Chrysler:			
Chrysler	73	2,965	3,877
Dodge	811	23,268	27,644
Plymouth	740	20,473	23,681
Total cars	1,624	46,706	*56,440
Dodge	45	2,208	3,093
Fargo	48	2,138	2,798
Total trucks	93	4,346	5,891
Cars, trucks	1,717	51,052	62,331
Ford:			
Ford	556	31,977	40,863
Mercury	82	6,132	4,849
Meteor	287	16,487	18,948
Monarch	87	6,104	4,880
Total cars	1,012	60,700	69,540
Ford	295	9,931	11,030
Mercury	85	3,443	4,530
Meteor sedan dlvy.	1	506	400
Total trucks	381	12,900	15,960
Cars, trucks	1,393	73,600	85,500
GM:			
Buick	175	10,162	9,398
Chevrolet	2,089	44,108	28,374
Oldsmobile	242	9,759	5,571
Pontiac	1,315	25,438	23,141
Total cars	3,821	89,467	66,484
Chevrolet	236	9,896	10,988
G.M.C.	182	6,384	7,649
Pontiac sedan dlvy.	23	457	680
Total trucks	441	16,737	19,317
Cars, trucks	4,262	106,204	85,801
International:			
Trucks	432	6,950	8,342
Stude.-Pack.:			
Stude. cars	200	3,043	5,056
All cars	6,757	201,382	201,090
All trucks	1,347	40,933	49,510
All vehicles	8,104	242,315	250,600
Prev. week	10,550	....	....
Last year	12,189	....	....

*Includes Nash and Hudson cars for Amer. Motors and Desoto cars for Chrysler.

Source: Canadian Automobile Chamber of Commerce.

Dividend Changes

PATINO OF CANADA — Common, 20c in U. S. funds, payable July 9, to shareholders of record June 20. Total payable in 1957 to date, 20c; total paid in 1956 to same date, 12½c; total paid in 1956, 12½c. Recent price: $9.

LONDON HOSIERY MILLS — Common, 30 cents payable July 1, to shareholders of record June 21; ex-dividend June 19. Total payable in 1957 to date, 30c; total paid in 1956 to same date, $1.50; total paid in 1956, $1.50. Recent price: $1.70.

ANNOUNCEMENT

Gould-National Appointments

J. B. HART — A. F. SMITH — D. H. SHAW

Mr. J. A. Banks, Vice-President In Charge of Sales of Gould-National Batteries of Canada, Limited announces that J. B. Hart, Industrial Sales Manager, will make his headquarters in Toronto; A. F. Smith has been appointed Automotive Sales Manager; and D. H. Shaw, Manager, Montreal office.

Show Business Equipment

A national business show is to be held in Canada for the first time next year.

Sponsored by the Canadian Business Equipment Manufacturers' Association it will be staged in Toronto, June 9-11, 1958.

Some 250 different displays are expected. They will range from computers to typewriters, from $2 million machines to $100 machines.

"Management is looking increasingly to the business equipment industry for more and more cost-saving devices.

"This show will give executives an opportunity to assess under one roof all the most modern office equipment," said the association's president, S. J. Burk, announcing the show this week.

Special Cameras Show Highlight

Television cameras capable of studying movements of fish 3,000 ft. down will be among the exhibits at this year's convention in Canada of the Institute of Radio Engineers.

The convention, held in Toronto in October, is already attracting widespread interest in the industry.

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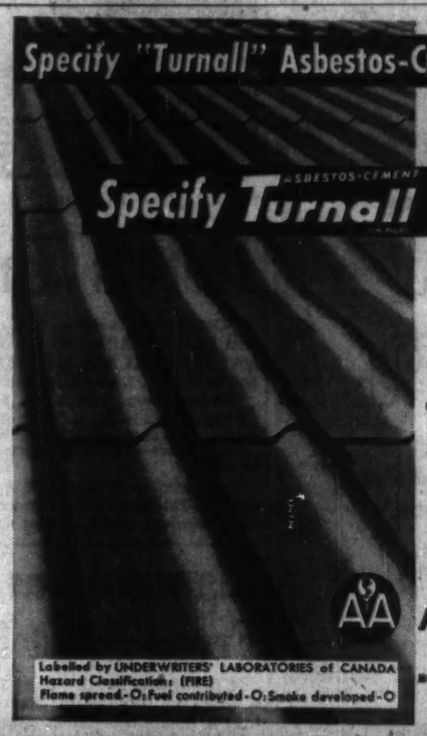

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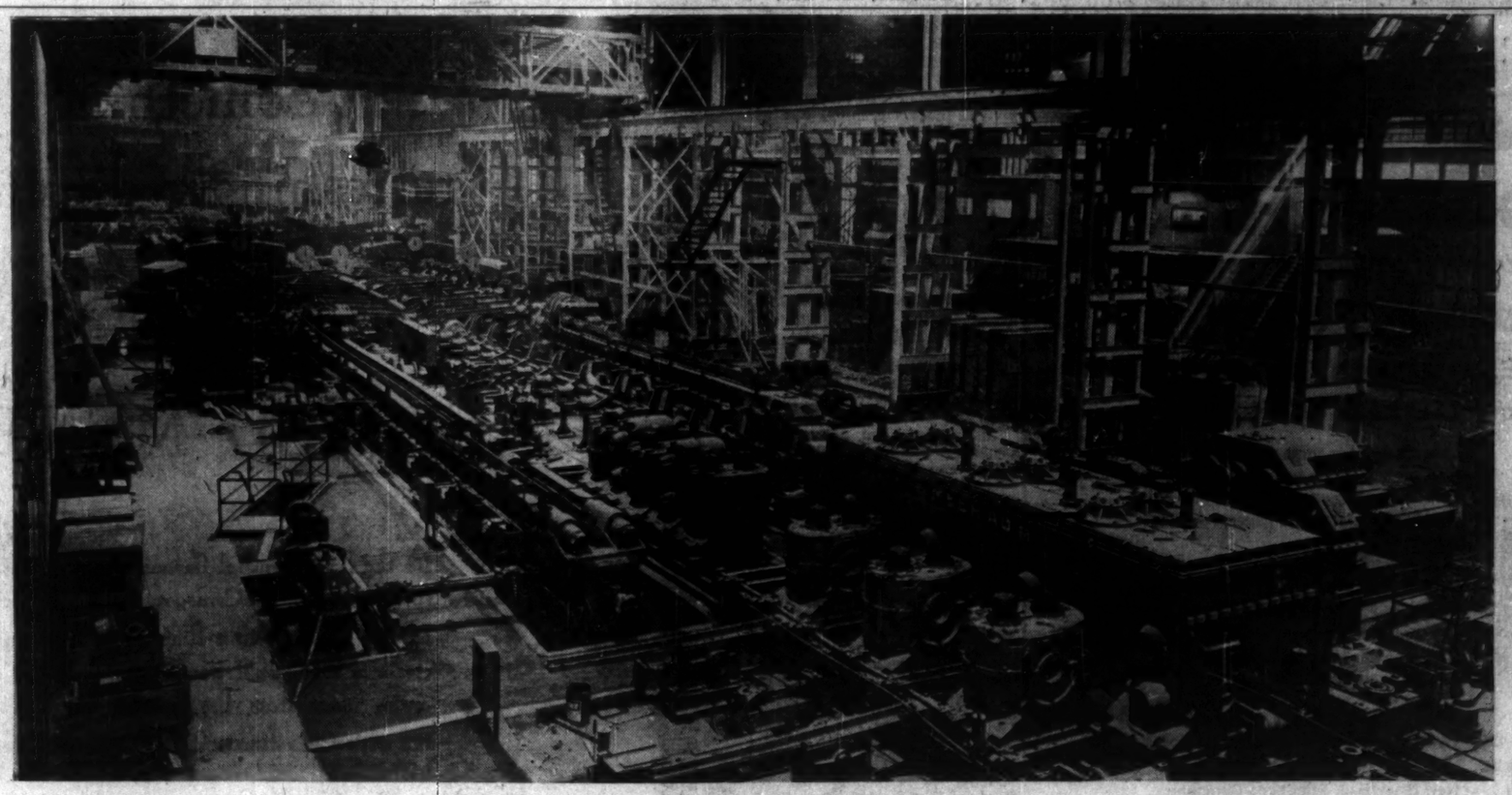
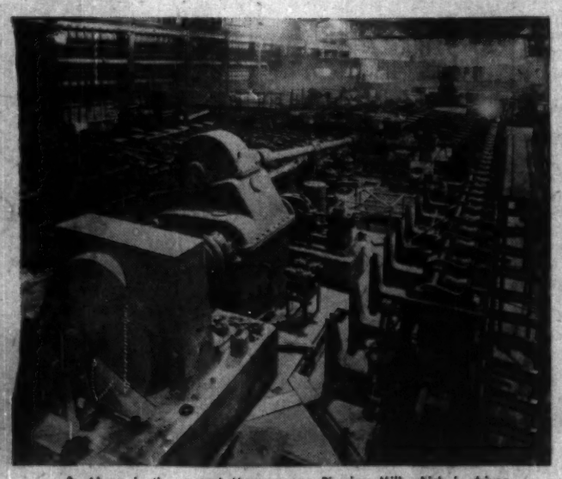
they made a "pipe dream" come true...



1. Here is a view of the finishing end of the world's first fully automatic seamless tube mill. It looks back across a sizing mill towards the furnace. A system of G-E Equipment controls the manufacturing process and overcomes the margin of human error along a production line that is housed in this quarter-mile-long, windowless, steel building.

CANADIAN GENERAL ELECTRIC helps build a "push button" marvel for Mannesmann Tube Co.

2. Two Reeler Mills at the revolutionary Mannesmann Tube Co. plant at Sault Ste. Marie roll hot pipe up to the desired diameter. Each is powered by two General Electric 400 hp DC Motors.



3. Above is the second Mannesmann Piercing Mill which is driven by a G-E 4000 hp Synchronous Motor. This Mill receives solid billets preheated to about 2,250°F. and lengthens the already hollowed pipe thereby making the walls thinner.

Working with Mannesmann engineers, C.G.E. helped to design, build and install intricate electronic and electrical equipment that "overcame the margin of human error" in the world's first fully automatic seamless tube mill. Opened at Sault Ste. Marie last week, this $20,000,000 mechanized marvel will produce seamless tubes from steel rounds in a "push button" operation at the rate of 225,000 tons annually.

The production line is almost entirely controlled by electronics. The system of General Electric equipment — custom designed and installed by C.G.E. engineers — is unique in that several giant pieces of machinery involved are the only equipment of their type in the world.

In extending congratulations to the Mannesmann Tube Company . . . Canadian General Electric wishes to express appreciation for being chosen to supply all major electrical equipment to help make this "pipe dream" come true.

For further information on G-E equipment, contact your nearest C.G.E. office, or write to:

Canadian General Electric Company Limited, Apparatus Department, 107 Park Street North, Peterborough, Ontario.

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Canucks Eat More Meat

Canadians are now eating 154.1 lb. of meat a year. Before the war the per capita consumption was 118.1 lb.

How does this compare with other countries? In Argentina, New Zealand, Australia, per capita consumption is 200 lb. a year. In the U. S., 165 lb.

These figures were given by G. J. Willows, president, Meat Packers Council of Canada, at the recent annual meeting in Saskatoon of the Retail Merchants' Association of Saskatchewan. Highlights of his report:

Inspected slaughterings of both cattle and calves in Canada set new records last year. The total output of meats and offal, including farm and local slaughter, amounted to more than 2.5 billion lb.

Canadian domestic consumption accounted for 98.8% of meat production last year. In 1955 the proportion was 97.5% and in the years 1944-45, only 56%-60%.

Said Willows: "At the moment we are eating practically all of the meat which we produce. However, there is no question that more meat could be produced in Canada and it would seem to me that there is every possibility that substantial additional quantities would or could be consumed by the Canadian people."

Outstanding Order For N. B. Potatoes

From Our Own Correspondent

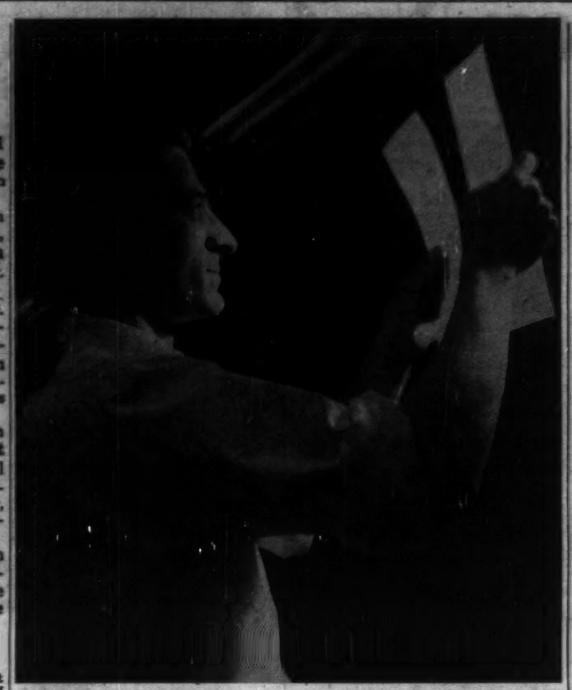
EAST FLORENCEVILLE, N.B. —The first big order in 1957 for New Brunswick seed potatoes—valued at $1,250,000 — has been placed by Venezuela.

Deliveries will be made from September to October.

The deal was made between the **McCain Food Co.** of East Florenceville and the director general of the Agricultural and Livestock Bank of Venezuela.

Last year Venezuela imported 550,000 bushels of N. B. seed potatoes valued at $1,024,000.

Andrew McCain vice-president of McCain said never before has such a large contract been negotiated so early in the season.



TECHNICIAN STUDIES two samples of Canadian International Paper's new line of bleached kraft board, which have been dipped in wax to simulate a dairy waxing process.

CIP is First Mill to Make 'Board' for Home Markets

MONTREAL (Staff)—Move by **Canadian International Paper Co.** into production of bleached kraft board has broad implications not only for the pulp and paper company but also Canadian consumers.

For example, the company is aiming its La Tuque output of the board at such end uses as milk containers, paper cups and frozen food cartons which has a large market potential in this country and is at yet relatively untapped.

While it estimates it will sell only about 15,000 tons of the foodboard valued at $3.5 million this year, in four to five years it sees a market of 30,000 to 40,000 tons.

It is the first time a Canadian mill has produced this type of board which up to now has been entirely imported from the U. S., and will supply about 80% of present Canadian requirements.

This will enable CIP to fill Canadian requirements from its La Tuque, Que. mill to all provinces except British Columbia.

It is likely that some export business to Britain will also be developed.

This is another step in CIP's program of diversification. It takes on added significance with a surplus of pulp developing because of the rapid increase in capacity of mills in North America.

The move will also broaden the use of CIP's 276-in. $7.5 million kraft board and paper machine, a 3,000 ton giant, largest machine of its type in the world.

With a capacity of 115,000 tons annually, it was initially introduced to manufacture liner board for the interior and exterior of corrugated boxes, the corrugating medium itself, and bag paper.

Limited Capacity

This base will be broadened with production of bleached kraft board which will take about 20% of machine time and about 15% of tonnage capacity.

The productive capacity of the machine on foodboard is limited by its drying capacity.

Although sulphite cup stock is currently being produced by other companies in Canada, bleached kraft is a new development.

CIP believes the strength, whiteness and low bacteria count of its kraft board gives it an important edge over competing materials in the paper cup and food packaging fields.

It's expecting to sell 7,500 tons of its 15,000 ton output for milk containers, 6,000 tons for paper cups and the remainder in the frozen food field.

U. S. foodboard sales run about 500,000 tons annually. That's over 25 times present Canadian market although population there is only 10 times as great.

But U. S. producers are more solidly entrenched and the converting field is big business.

CIP's market research experts see the biggest market in milk containers.

Less than 10% of the milk sold in Canada is packaged in paper against over 50% in the U. S. where the glass bottle has lost ground sharply in the last decade.

They believe the curve of Canadian consumption will follow the U. S. experience and milk container stock will become the biggest outlet for its foodboard production.

CIP will supply the kraft board to **Somerville Co.** for conversion at its London, Ont., and Winnipeg plants, the latter of which came into production last year.

It will also provide some of the raw material for the Perga Division of **Continental Can Co. of Canada**, Hamilton, Ont.

Last year, **International Paper Co.**, CIP's parent firm, supplied these companies with 6,500 tons of the bleached board.

The only other converter in Canada is **National Paper Box**, B.C. which like Somerville, is controlled by **Garfield Weston.**

The Somerville machines are made by **Ex-Cell-O Corp.**, Detroit, which holds the patents to whom converting companies pay royalty for their use.

Another interesting field is that of cigarette packages where pure bleached kraft board is stronger than the manilla coated stock now used by most cigarette companies.

One of the most recent companies to enter the tobacco field in Canada, **Tobacofina**, is using fourdrinier bleached kraft board.

CIP has faced problems;

A large number of customers, widely different specifications.

Producing economically a wide range of products.

Small tonnage orders compared with similar manufacturers in the U. S.

U. S. Utility Experts Study Winnipeg & Central Gas Bid

From Our Own Correspondent

WINNIPEG — Application of the **Winnipeg Central Gas Co.** for approval by the public utility board of its price schedule for sale of natural gas to consumers in Winnipeg and suburban municipalities, has been referred to **Duff & Phelps**, a Chicago firm of utility consultants.

The reference to the outside authority is merely for study of briefs already submitted to the utility board which has had two public hearings and must eventually make its own decision.

Representatives of the firm are already engaged in study of the material and no date has yet been set for the next hearing.

In the meantime Winnipeg & Central Gas Co. is going ahead with laying mains for distribution of gas when it is deliverable which is expected about the end of September.

Its proposed rate schedule is being contested in some quarters on the grounds they are too high compared with prices to be charged in centres west of Winnipeg.

The city has asked for delay in further hearings of the utility board until it has time to prepare a brief of its own.

In addition to the application of Winnipeg & Central Gas Co., there is a possibility another may be made by **Great Plains Gas Co.** which is claimed to either have franchises or negotiating for them in two of Winnipeg's smaller suburban municipalities.

So far as the utility board is concerned two franchise agreements have been submitted by this firm for approval of the board.

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ANNOUNCEMENT

New CANADAIR APPOINTMENTS

DEAN P. STOWELL — JOHN URWIN — FREDERICK R. KEARNS — JOHN B. HUNTER

The appointments of Dean P. Stowell as vice-president — manufacturing in an acting capacity, John Urwin as secretary-treasurer, Frederick R. Kearns as executive assistant to the president, and John B. Hunter as assistant comptroller, have been announced by J. Geoffrey Notman, president of Canadair Limited. Mr. Stowell, formerly assistant to the president, succeeds Robert A. Neale who has been granted an extended leave of absence. Mr. Urwin was formerly acting secretary-treasurer, Mr. Kearns was an assistant comptroller, and Mr. Hunter was cost accountant.

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The telescope can't reveal the true factors upon which success depends in the creation of an industrial or commercial enterprise. These are economic factors — factors such as the cost of assembling raw materials, operating costs, and the cost of distributing finished products.

The Canadian National maintains a technical staff trained to assess the many considerations pertaining to sound industrial placement. Why not consult them, in confidence, during the early stages of your planning? Others do, constantly, without obligation of any kind.

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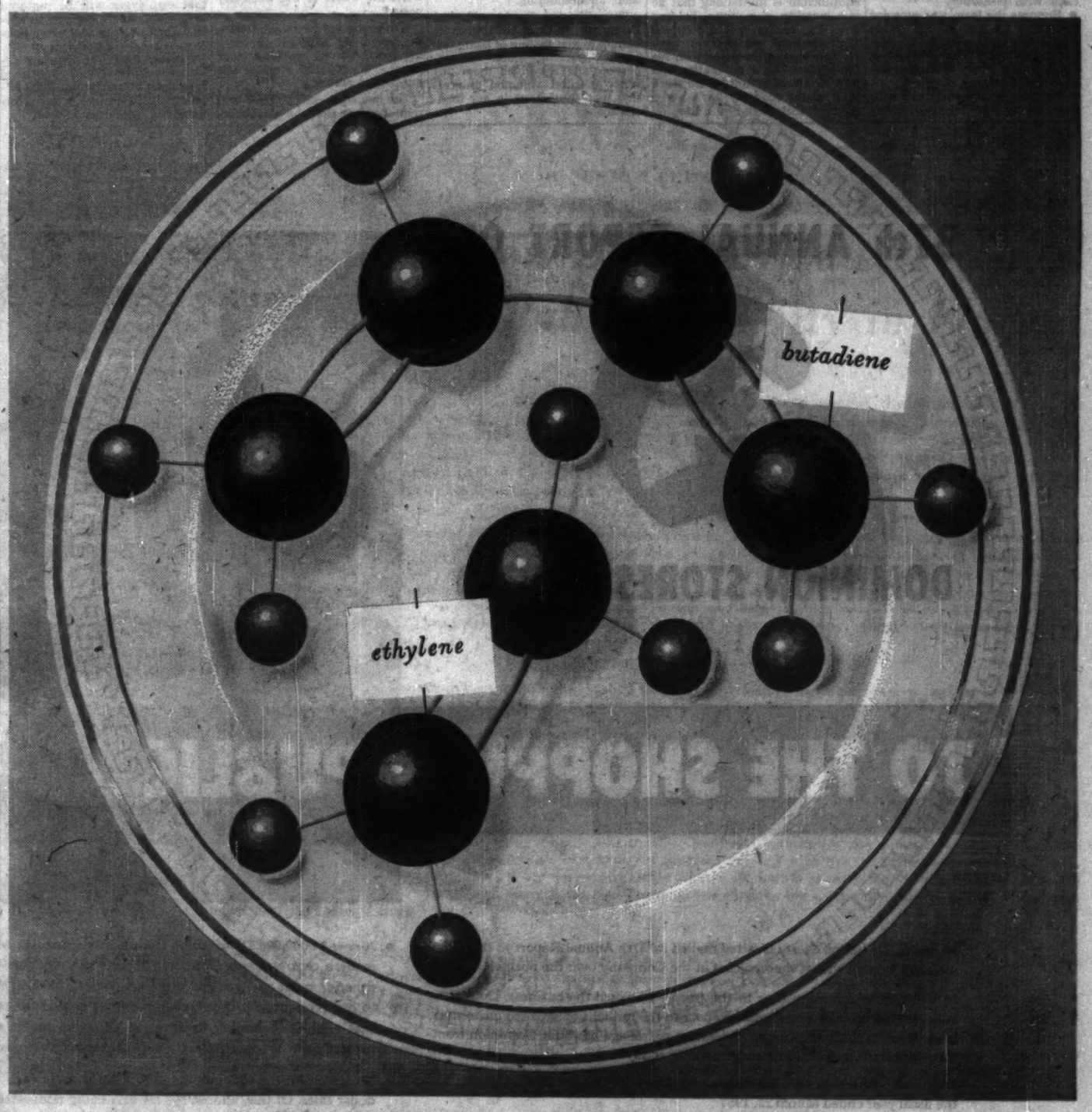

FOOD FOR A GROWING GIANT

Canadian industry has developed a great appetite for hydrocarbons, from which organic chemical derivatives are produced. The multi-million-dollar petrochemical project now in progress for Imperial Oil Limited at Sarnia, Ontario, will go a long way toward satisfying that appetite. This plant, in effect, will be a "food bank" for the supply of hydrocarbons for the Canadian chemical industry, including butadiene and ethylene.

Like many other projects undertaken by Bechtel, the Imperial plant is a "grass roots" project—engineered and built from the ground up under single responsibility.

BECHTEL
CANADIAN BECHTEL LIMITED
Builders for Industry
TORONTO • VANCOUVER

Business and Sports: Yes or No?

Why should a company sponsor a hockey team?

- **Better company morale?**
- **Does it make the company's name better known?**

It does both these things, and others too, says G. F. Plummer, vice-president, automotive sales division, Dunlop Canada Ltd. Dunlop sponsors the Whitby Dunlop Hockey Team which will represent Canada at the world hockey championships at Oslo in February.

The same results would come from sponsorship of most types of sport. Here's a digest of Mr. Plummer's recent speech to the Toronto Progress Club.

Dunlop Canada Ltd. was partially responsible for sponsoring a major sporting activity, the Whitby Dunlop Hockey Team. I want to tell you of some of the thoughts and decisions leading to that association.

In sponsoring a hockey team, one isn't guided by profit motives or other normal business influences. Sentiment, loyalty, superstition, hunches, must be given equal weight to the normal business influences of logic, timing, finance, etc., and perhaps the former weigh even more heavily.

Our first contact with the Whitby hockey team, which at that time was in Senior B, Ontario Hockey Association company, was when a group of hockey executives and local businessmen approached us to be the major contributor to the inevitable deficit that plagues major sport.

As a corporation, we had to consider these problems from a corporation's point of view:

- Suppose the team was second rate and lost consistently? Would our name be linked with "failure," a word we consider in a class with profanity?
- Suppose the team was superior and won all its games? What would the supporters in the losing towns say? "Boo Dunlop" is not a phrase likely to inspire our sales activities.
- Suppose we were plagued with requests to give jobs to hockey players who would be more interested in playing hockey than working?
- Suppose the club ran into financial difficulties or law suits? Would we have actual or moral responsibility?

Fears Unreal

Not one of our fears was realized. Win or lose, these boys made friends and acted like gentlemen. Those who now work for use are absolutely first class people to whom we look for major contributions to the company in the near future whether or not they play hockey again.

What did this sponsorship do for us as a company? We have examined the results rather critically.

We learned that virtually everyone was interested in the team; everyone in the company, everyone in the town, and in all the towns in which they played.

Why this interest on an almost national level in a group of hockey players?

The psychologists tell us that an essential part of a man's social equilibrium is the feeling that he is a member of a group. In days gone by, before sports occupied their present position of preeminence, man grew up with his family in a single occupation and in a single community. He lived in a static economy in a static society which gave him a lifetime association with a family and community group.

Membership in, and the feeling of belonging in a group, sustains a man, helps him maintain his equilibrium. If the group in which he is a member is shattered, if he moves away and leaves the family or community group behind him, he finds himself alone.

This is exactly what has been happening to too many people in our dynamic, highly urbanized society. That same young man grows up within a family group, obtains a job in a factory or at a place of business where he probably knows no one.

New Social Group

Suddenly he finds himself without links with the social group of which he was a member and he must find a new group to take the place of the old one.

This young man soon finds that an interest in sport is the type of association that answers his social instincts. Sport has become a great link between men in all walks of life.

Very early in the history of our sponsorship of the Whitby hockey team, we discovered an interesting phenomenon. Employees at all levels began to take a very vital interest in the hockey team. Here was a subject on which they could all express themselves with equal emotion and authority.

It gave everyone of us a common interest over and above his particular job and it gave everyone the feeling of belonging to the same sociological group. Do you not think that a basic cause of discontent in industry today is not income or security really, but the feeling of not belonging — feeling that we are simply unimportant cogs in a machine?

We cannot express this feeling because many of us do not know the real reasons for our discontent, and this is why we hear superficial and silly complaints. The people are subjectively involved in a sociological upheaval which is far too complicated for their understanding.

The Whitby Dunlop Hockey Team, we are sure, did much to eliminate that feeling of being lost on the part of scores of employees and has given them this very essential common interest that man must have in our modern society.

Incidentally, productivity was never higher than during the latter part of the season. I am not suggesting for a moment that company hockey is a great, new answer to the problems of our modern industrial economy.

I am suggesting, however, that it can be part of an answer.

Company Benefited

Fortunately, sports have healthy byproducts in the community in addition to contributing to company morale. We know because we have benefited from all these things.

You have probably noticed that the Whitby Dunlop Hockey Team has been sanctioned by the Canadian Amateur Hockey Association to represent Canada in the world hockey championships in Oslo, Norway, next February.

We, as a company, are contributing to this effort for three reasons:

—We, as Canadians, do not want to see another year go by without this great country that has made hockey what it is, represented in the world championships.

—We believe that Canadian participation in, and we hope for a Canadian victory at the world finals, will help build the stature of Canadian sports as a necessary and vital part of Canadian life, and that we and our employees will benefit.

—We know they will bring the hockey championship title back to where it belongs — Canada — the world capital of hockey!

LABOR AND THE LAW

Good Faith Counts When Answer Is Contradictory

Significant rulings in the broad field of labor law are reviewed in this regular FP feature.

It goes without saying that a combined "yes" and "no" answer is bound to create misunderstanding leading to trouble.

When this happens the case must stand on its own set of facts, with good faith being the primary factor.

In this case, the collective agreement required that an employee "must work on the scheduled work day preceding the holiday and the first scheduled work day following the holiday" to be eligible for holiday pay.

Here's what happened:

The employee, a woman, worked on the day preceding a statutory holiday.

She reported for work the day following the holiday, but did not work the whole of the work-day period.

She requested permission from the personnel manager to leave the plant after working four hours. She offered a good, unquestioned reason.

The manager said "O.K." and reminded her that she would forfeit holiday pay. He "assumed" that she accepted the loss.

The employee commented "Oh."

Subsequently docked the holiday pay, she filed a grievance.

The arbitrator ruled in favor of the employee.

His reason:

There's no question of her good faith, desire and effort to live up to the terms of the collective agreement. The violation was unintentional.

"I do not think that the employer can consent on the one hand and at the same time object," he said.

Company argued the case because it wanted protection in future cases that employees would not interfere with production unnecessarily by booking off prematurely before or after holidays.

The logical result: Attempt to reword the pertinent clause so that employees will be required to work their "regularly authorized shift" before and after holidays to receive holiday pay.

Source: P 99, Vol. 7, Labor Arbitration Cases (1957), published for Central Ontario Industrial Relations Institute by Cartwright & Sons Ltd., Toronto, 30-4-57.

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is opening branch offices...

When your business is spreading out, you will be wise to take advantage of the extensive on-the-spot banking facilities offered by our immense network of branch banks across Canada as well as abroad.

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B-117A

37th ANNUAL REPORT OF

DOMINION STORES LIMITED

TO THE SHOPPING PUBLIC

Recently, Dominion Stores Limited mailed its 37th Annual Report to the 3,280 men and women who as shareholders in the Company own the business.

In addition to reporting thus to the people who own the business, Dominion believes also in making an Annual Report to the millions of satisfied customers from coast to coast whose ever-increasing patronage has built Dominion from three small stores in 1919 to more than 325 today.

Following are some of the highlights from Dominion's 37th Annual Report for the fiscal year ended March 23, 1957:

- Dominion attracted the greatest number of customers in its history. As a result, sales increased by more than 50 million dollars to a record total of $270,518,579. (See at right a breakdown of where each customer's money goes.)
- Thirty modern new markets were opened during the year, and construction was started on an additional 31 from Vancouver to Halifax.
- More than a thousand new jobs were created by Dominion's growth, and at year end a total of 5,797 full-time and 4,681 part-time people were employed in the stores, plants and offices of the Dominion organization.
- A new $4,000,000 Distribution Centre was opened at Montreal, one of the modern centres where Dominion gathers the products of Canadian farms, fisheries, meat packers, and processing plants, for fast, efficient distribution to our retail stores. It is the efficiency of behind-the-scenes food handling that enables Dominion to offer the shopping public merchandise at the highest peak of freshness and quality, at the lowest possible price.
- Net profit for the year amounted to slightly more than two cents on every dollar sales. Of this, almost 1½ cents is being reinvested in the business to expand and improve our service to the shopping public.

We sincerely thank the millions of customers whose patronage has built this great truly Canadian enterprise. In appreciation we will continue to strive for ever-increasing efficiency at every level of our operations, to help cut food costs and provide maximum shopping comfort and convenience.

THOMAS G. McCORMACK,
President,
DOMINION STORES LIMITED

When a Family Spends $10 at a Dominion Store—

Farmers, producers, packers, manufacturers and other suppliers receive	$8.27
Employees receive in wages and benefits	.81
Rents, local taxes, licenses, insurance, light, heat, water, telephone, laundry, maintenance and other operating expenses take	.50
Federal and Provincial taxes on income take	.21
The 3,280 shareholders who own the business receive in dividends	.07
The balance, reinvested in the business to provide new stores and for continuous modernization, is	.14

Quotes from "On-the-Scene" Newspaper Reports about INDIAN LAKE ESTATES

The News
Washington, D.C.

"Country club development is rapidly taking shape . . . I have watched the development of many areas in Florida, but never have I seen one to quite equal the scope of this ambitious undertaking."

MIAMI DAILY NEWS

"Indian Lake Estates is living up to developers' claims . . . you can see with your own eyes what Ackerman is doing—and it's more impressive than the brochure."

Miami Herald

"A Florida development that is living up to its fanfare is Indian Lake Estates. Leon Ackerman is the Washington realtor who is creating the State's first private city on 7,000 acres. Last July, the Herald carried a story about this heavily-advertised development. The verdict then: Indian Lake Estates was NOT in the wildcat and misleading mail-order pattern."

THE CHRISTIAN SCIENCE MONITOR

"Mr. Ackerman brings to his 15-square-mile

Indian Lake "We-oh-ya-Kapka" the vision of an idealist combined with the get-up-and-go of a practical builder. He is here, there, and everywhere, looking over his 6,500 residential sites, directing, persuading, and energizing the crews that are gradually building the community into a pattern that the eye can follow."

Actual Photograph: Indian Lake Estates' beautiful 15-square mile lake has a firm, sandy bottom sloping gently from the shore.

INDIAN LAKE *Estates*

In South Central Florida
18 MILES SOUTHEAST OF LAKE WALES

Multi-Million Dollar Private, Planned Country Club Community in Florida

Actual Photograph: At Indian Lake Estates, new Mercury street lights on dual lane, palm-lined avenues.

Club House For Indian Lake Estates—construction is well underway. This spacious club house is adjacent to the 18-hole golf course (now under construction).

For the location of our private Country Club Community, we made a careful three-year survey of the State. We wanted a place in the "golden state of Florida" suitable for year-round living. More than any other of its outstanding advantages, it is climate which attracts people to Florida, and no more delightful climate can be found anywhere than at Indian Lake Estates. We carefully checked its advantages: location in the ridge section . . . the highest part of Florida; proximity to Ocean and Gulf; the many lakes in the area and our own 15-square mile Lake We-oh-ya-Kapka.

Indian Lake Estates is in the beautiful highland lake region, 75 miles south of Orlando. We chose our location not only for its enjoyable, dry climate, but also what we consider the prettiest part of Florida. Here you will thrill to the beauty of rolling hills, myriad lakes and miles of fragrant citrus trees. For sheer beauty, delightful year-round climate, recreational opportunity, cultural advantages and sound investment, we are convinced that no other section of the State has so much to offer. Indian Lake Estates is high above sea level (64 to 115 feet), away from enervating humidity and the threat of hurricanes, yet close to both Ocean and Gulf.

An all-year growing season makes gardening one of the many pleasures to be enjoyed at Indian Lake Estates. Here you can have your own "dooryard" citrus trees, avocados, mangos and many other nutritious tropical fruits. Indian Lake Estates is being lavishly landscaped with majestic palms and colorful tropical flowers. The natural beauty of its setting is being further enhanced by the extensive beautification program now in progress.

Indian Lake Estates is an ideal place to live, and expertly planned for discriminating people. Building plans must be approved by the Planning and Zoning Committee. All parks and street plantings will be well maintained. Personnel at the gate entrances to the property maintain the complete privacy of the community. At Indian Lake Estates you can enjoy suburban privacy with the conveniences of a metropolis. The natural advantages afforded by its 15-square mile lake, wide beach areas fringed with exotic palms and the opportunities for recreational enjoyment are features which have led to the wide acclaim and popularity of Indian Lake Estates.

Here in a setting of indescribable beauty is a limitless water sports playground. Indian Lake Estates borders beautiful Lake We-oh-ya-Kapka. This 15-square mile, spring-fed lake has a firm sandy bottom sloping gently from the shore, and the sparkling fresh water is superb for bathing, water-skiing and boating. Anglers in great numbers find Lake We-oh-ya-Kapka a fisherman's paradise. In addition to the 1,000-foot private pier, the longest fresh water pier in Florida (now completed), the construction of the modern, beautiful club house is well underway. These and other facilities are all provided at no additional cost to the purchaser, and for his exclusive use. Our brochure, explaining in more complete detail, will be sent upon request.

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Representatives on the Property Daily and Sunday until Dark

Leon Ackerman
President of Indian Lake Estates, Inc.

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A Gordon Royal Commission Study

Iron and Steel: Mighty Era

From 1939 to 1956 basic steel-making capacity in Canada jumped almost 250% while huge U. S. steel industry increased 57%.

Will our tremendous expansion in primary iron and steel continue? At what rate in the next 25 years? And where?

Dr. Lucy Morgan, manager, economics department, Bank of Nova Scotia, in a study prepared for the Gordon Commission, predicted:

• Most expansion will take place at established plants.

• Giant new steel plant is likely for the St. Lawrence.

Here is a digest.

Canadian primary iron and steel industry embraces several dozen firms. Only four companies, however, are "integrated" producers:

Dominion Steel and Coal Corp., Sydney, N.S.; **Algoma Steel Corp.**, Sault Ste. Marie, Ont.; **Steel Co. of Canada**, and **Dominion Foundries and Steel, Ltd.**, both at Hamilton, Ont.

They produce all of the pig iron, over 90% of the steel ingots and castings, and nearly 90% of the steel rolling mill products made by the industry.

Among other firms, the most important is **Atlas Steels Ltd.** at Welland, Ont., which produces alloy steel in electric furnaces from scrap and makes specialty items. Mention should also be made of the three steel mills in the west — **Manitoba Rolling Mill Co.**, at Selkirk, Man.; **Premier Steel Mills Ltd.** at Edmonton, Alta.; and **Western Canada Steel, Ltd.**, at Vancouver, B.C. — all of which melt down scrap to make concrete reinforcing bars and other merchant bars and shapes, and of **Burlington Steel Co.** at Hamilton, which rerolls old rails to make these products.

In size, Canada's steel industry is eleventh in the world.

In per capita consumption of crude steel, Canada actually ranks second to the United States. Her rank in per capita steel consumption is considerably higher than it was before World War II, exceeding by a considerable margin that of any of the other leading steel-consuming countries.

The gap between Canada and the U. S. is very large, Canada's annual per capita consumption of crude steel amounting in 1953 to 774 lb. against 1,376 lb. for the U. S.

The discrepancy reflects both a somewhat lower standard of living and the big Canadian imports of machinery, household durable goods, transport equipment and other finished steel goods and fabricated parts.

Expansion Factors

The rate at which Canadian per capita steel consumption approaches the present U. S. rate depends partly on how fast the economy grows and the standard of living rises and partly on the extent to which Canada's metal-using industries develop.

The rate at which per capita steel production grows depends in addition on the extent to which Canada supplies an increasing proportion of her own requirements of unfabricated steel.

The big postwar increase in Canadian steel production would naturally lead one to expect a decline in the importance of primary steel imports. In point of fact, however, little decline has occurred.

In 1955, Canada imported around one million tons of steel rolling mill products, or the equivalent of perhaps 1.3 million tons of ingots, allowing for an average loss of 25% between the ingot and the finished product.

Since Canada's own ingot production was approximately 4.4 million tons, and exports the equivalent of approximately 0.6 million, it is apparent that imports supplied between 25% and 30% of a total consumption of well over five million ingot tons.

This is a much smaller percentage than in the late 1920s when imports supplied between 55% and 60% of consumption and somewhat smaller than in the late 1930s when they supplied between 35% and 40%. But it is only moderately less than the average for the rest of the postwar period, and it must be remembered that imports in 1955 were limited by the world-wide shortage of steel.

In other words, the growth in the Canadian market for steel has been so large that, in spite of the big rise in domestic production, imports in total have remained large both absolutely and relatively.

Canadian Owned

Among the major Canadian manufacturing industries, primary iron and steel is an outstanding example of Canadian ownership and control—total capital invested at end of 1953 amounted to $355 million, of which $296 million, or 83%, was owned in Canada. Whether this fact has any bearing on the likelihood of future expansion it is difficult to say.

Since steel is the most important material in durable goods, demand for it swings widely with changes in national prosperity. It has tended in the postwar years to alternate between periods of over-supply and fierce competition and periods of acute shortage.

This report is the eleventh of an FP series which will sum up each of the special studies made for the Gordon Commission.

The outlook, in short, is for a continued increase in the volume of those thin flat-rolled steels already produced for an increasing variety of products, though no doubt many specialty lines of which Canadian usage is small will not be made for many years to come. Large part of the expansion now in prospect is likely to go into thin flat-rolled products.

The outlook for expansion in tonnage steels, items of low or medium-unit value such as plates and structurals, which are closely related to the capital goods industries and traditionally have been subject to violent fluctuations in demand, is more problematical, particularly as these are the lines in which competition from European imports is most noticeable.

Two factors have substantially improved the outlook for an expansion of plate capacity in Canada:

• The market has grown significantly. In the past five years, including the off year 1954, it averaged roughly 325,000 tons annually compared with about 265,000 tons in 1948-49-50 and about 105,000 tons in the five years before the war. In 1955, it reached a record figure of over 370,000 tons. Further growth will result from the installation of the new Stelco-Page-Hersey large-diameter pipe mill.

• It may be that the plate market, which in the past was very largely dependent on the highly volatile construction, railroad equipment and shipbuilding industries may become more stable with the increasing importance of the chemical and oil-refining industries, in which large quantities of plate are used for tanks, and with the growing demand for large-diameter pipe for oil and gas pipelines.

When these factors are considered, it seems likely that a single-purpose plate mill may well be a development of the next few years and that Canada will supply an increasing proportion of her own plate requirements.

The fact is that there is a world-wide shortage of structural steel and plates. Most of the big postwar expansion in steel capacity, both on this continent and in Europe, has been in thin flat-rolled products and, unless Canadian production of structural steel and plates is expanded, shortages of these products are likely to continue to plague the construction industry, and other industries which use them, during periods of high demand.

To form any idea of what Canada's steel production and consumption might be in 25 years involves a number of basic assumptions about the growth of population and of the economy, which in turn depend heavily on judgments about the world economic and political climate.

Since the effects of another World War are completely unforeseeable, it is assumed that no major war will occur during the period.

Since a healthy rate of growth in the Canadian economy is closely related to external conditions, it is assumed that the world economic climate will on the whole be reasonably satisfactory.

With the population of, for example, 26 million and Gross National Product of $68 billion (at 1955 prices) the Canadian per capita production and standard of living would be somewhat higher than that now prevailing in the U. S. It does not follow, however, that per capita steel consumption would necessarily be as high as the 1,375 ingot lb. now consumed annually in the U.S., which would mean a total consumption of 17½ to 18 million tons annually, over three times the present rate.

While it may be confidently expected that Canada will, as time goes on, manufacture a larger proportion of her own requirements of machinery and transportation equipment, it is not to be expected that she will, even in 25 years, be in a position to supply all the varied kinds of machinery needed in a complex industrial economy.

Moreover, technological changes of one sort and another, including the substitution of other materials such as aluminum, plastics and cement for steel in certain uses, may affect steel consumption.

Considerations such as these make it impossible to predict with any degree of accuracy what the level of Canadian steel consumption will be in 1980, though some of the broad lines of development that are likely to take place can be indicated.

Far more important than the increased use of substitutes in assessing future steel consumption in Canada are the growth prospects of the steel-using industries. No complete statistics of steel use by the various industries are available.

It seems likely, for instance, that from now on demand from the railways will be largely for replacement, and that consumption of steel by this industry will grow little if at all and will become a declining proportion of the total as it has in the U. S. over the past few decades.

Agriculture and the farm machinery industry may well account for a smaller proportion of total steel consumption than they do now, even though farm mechanization still has a long way to go and there will be a continuing replacement demand.

If, however, assumptions turn out to be true, a continuing strong rate of growth can be expected in construction and in the resource industries, forestry, mining, and oil and gas. The likely growth of oil-well drilling and pipeline building is one of the strong elements in the outlook for steel.

As far as the manufacturing industries are concerned, it seems reasonable to hope that, as the Canadian market grows, it will become economically feasible for Canada to supply an increasing proportion of her own needs for machinery and parts.

In addition, with a growing population and a rising standard of living, the outlook is for a substantial growth in the household appliance, steel furniture and office equipment, and automobile industries. It does not follow, of course, that the growth in steel consumption will be directly proportionate to the growth in these manufacturing industries.

The further question remains: What level of Canadian steel production does this level of consumption imply?

In the past quarter century the proportion of primary steel imported has declined from about one half to less than one third and it is reasonable to expect a continuing decline.

As the industry grows in size and increases the variety of its products and the range of widths and gauges it makes, imports might very well become a comparatively small proportion of total consumption, perhaps as little as one sixth or one eighth.

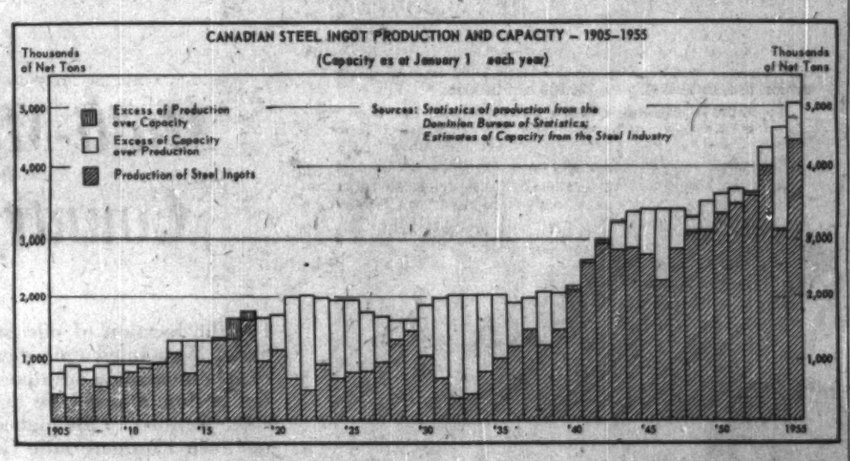
In other words, of a consumption of 14 to 16 million tons, the domestic industry might supply as much as 12 to 14 million tons and imports would very likely be below three million tons and quite possibly around 1½ million.

Much of the expansion that is in prospect over the next 25 years will undoubtedly take place at established plants. There are, however, limitations of space—at Hamilton if not elsewhere—and for this reason, if for no other, it seems inevitable that eventually integrated steel operations will be set up at locations other than the present ones.

At the present time, and perhaps for as far ahead as 25 years, there appears to be only one area in Canada where a full-scale integrated blast furnace open-hearth steel plant might be justified—and that is somewhere on the St. Lawrence close to the Montreal market. A large mill there, using Labrador ore and low-freight U. S. coal brought back through the Seaway in returning ore vessels, is, indeed, a quite likely development of the next quarter century.

It seems unlikely that the market in western Canada will grow sufficiently, even in a period as long as this, to justify such an installation in British Columbia or in the Prairie Provinces. However, the establishment of a smaller and less costly installation, employing some of the new processes or others that may be developed in the future, is not unlikely.

The sums involved in increasing capacity by, say, eight million tons in the next 25 years are staggering—possibly around $2 billion if part of the expansion were at established plants and part at new sites.



Report's Suggestions

Here are some of the Gordon Commission's predictions for Canada's primary iron and steel industry, as given in the interim report:

• As time goes on Canada will manufacture a larger proportion of her own requirements of machinery and transportation equipment.

• Technological changes of one sort and another, including the substitution of other materials such as aluminum, plastics and cement for steel in certain uses, may affect steel consumption.

• Continuing strong rate of growth can be expected in construction and in the resource industries. The likely growth of oil-well drilling and pipeline building is one of the strong elements in the outlook for steel.

• Outlook is for a substantial growth in the household appliance, steel furniture and office equipment, and automobile industries. It does not follow, of course, that the growth in steel consumption will be directly proportionate to the growth in these manufacturing industries.

• Even if the Canadian economy achieves an overall per capita production as high as that now in the U. S., steel consumption can scarcely be expected to reach the present U. S. per capita level, which would mean a total consumption of between 17.5 and 18 million ingot tons a year.

• Much expansion in prospect will undoubtedly take place at established plants. It seems inevitable, however, that eventually integrated steel operations will be set up at locations other than the present ones.

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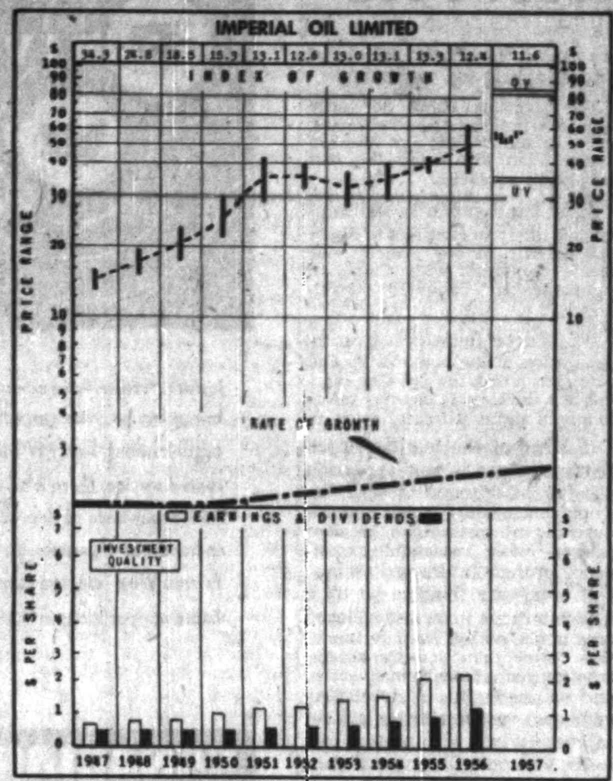
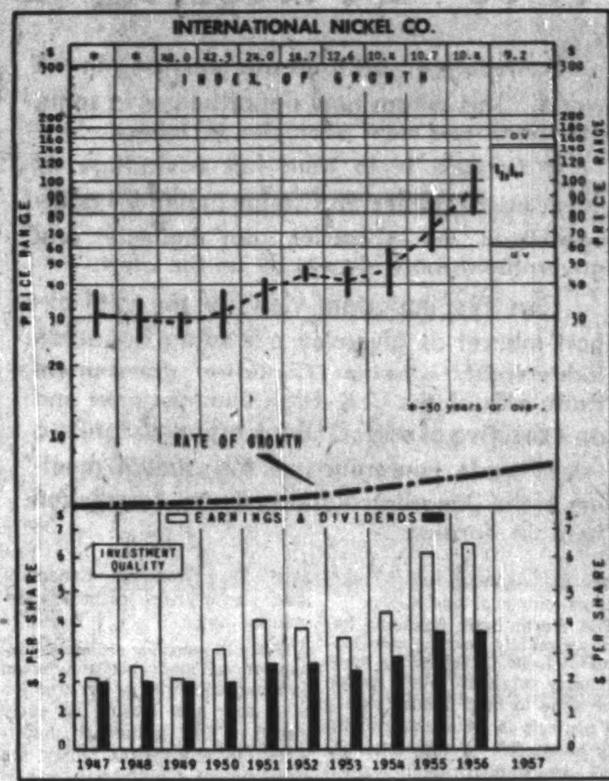
Selected Growth Stocks

— Quarterly Review —

By NESTOR

This exclusive FP series of Selected Growth Stocks was chosen by one of the continent's most prominent and successful investment advisers. The reasons for choice shown below the accompanying charts were those given when stocks were chosen in January, 1953. Each will be reviewed quarterly. This series in FP does not constitute a recommendation to buy these stocks.





Imperial Oil

Imperial Oil Ltd., trading at recent $58⅞, is 64% above UV level ($36), has room to rise 39% before reaching OV level ($82). Price is 26.8 times 1956 earnings of $2.20 a share. Yield is 2.21% at indicated annual dividend rate of $1.30 per share. Price in 1957 has ranged between high of $60 and low of $50¾.

Earnings for the first three months of 1957 were $21.6 million or 68c a share, an increase of 12.3% over $19.2 million or 64c in first-quarter 1956.

The increase was the result of higher sales, refinery runs and production. Product sales climbed 13.6%, and refinery crude runs 16%. Crude oil output at 105,776 b/d was 163 b/d higher than a year earlier.

Record expenditures of $160 million are planned this year, for new plant, expansion of existing facilities, exploration and development programs.

Compression ratio of auto engines is rising by about half a point annually, President J. R. White noted recently, and is expected to continue rising at this rate for the next few years.

Each increase of half a point requires a 1½ point increase in octane number of motor fuels. Plant investment for an increase of 1½ points in octane numbers is about $20 million.

By 1961, the president added, petroleum consumption will be 35% higher than in 1956. Canada will then require nearly one billion b/d, compared with 720,000 b/d in 1956.

To improve gasoline quality, power former has been completed at Montreal, and two others are under construction at Winnipeg and Ioco, B.C.

Exploration crews are active in many parts of Canada, including the Maritimes, in Quebec both on the south shore not far from Montreal and on the north shore near Trois Rivières, in Ontario (including an off-shore well in Lake Erie), on the prairies and in northern British Columbia.

Capacity of Winnipeg refinery is being boosted from 15,000 to 17,500 b/d.

Imperial St. Lawrence, Japanese-built 35,550 tanker, recently arrived in Halifax on her maiden voyage.

Shareholders have approved a bylaw authorizing an increase in capital stock from 35 million to 40 million n.p.v. shares. Company has no plans to issue additional shares at present.

Executive office was recently moved from downtown Toronto to a new $8 million, 22-story headquarters six miles north.

IMPERIAL OIL — Imperial's outstanding record for oil discovery in Western Canada, its large reserves, and its continuing exploration and expansion program promise, along with the continually growing demand for petroleum products, to maintain the company's position as Canada's largest and most fully integrated oil company.

International Nickel

International Nickel Co. of Canada, at recent market of $105, is 69% above UV level ($62), could rise 33% before reaching OV level ($140). Price is 16.2 times 1956 earnings of $6.50 a share. At indicated annual dividend rate of $3.75, yield is 3.57%. Price this year has ranged between high of $111 and low of $94¼.

Earnings in the three months ended March 31 were approximately $1.61 a share, down from $1.63 in fourth-quarter 1956 and $1.79 in January-March last year. Lower copper prices and a strike at the Huntington, W. Va., works more than offset the effect of an increase in the price of nickel.

Capital expenditures in the first three months of 1957 were $10,028,000, up from $4,162,000 in the preceding quarter and $6,858,000 in the comparable 1956 quarter.

Increase was occasioned chiefly by development of the $175 million Mystery Lake-Moak Lake nickel project in Manitoba. This year's capital spending is estimated at $50 million for the Manitoba project.

At Grand Rapid on the Nelson River, Manitoba Hydro-Electric Board has ordered construction of a $40 million power plant to serve the Inco project. Initial installed capacity is expected to be between 150,000 and 200,000 hp.

World nickel-producing capacity by 1961 is expected to reach 650-675 million lb., an increase of 50% over 1956. If defense demand remains steady and governments do not stockpile nickel, the 1956 rate of world civilian consumption will have to rise by more than 75% to absorb the increased output.

Consolidated net profit of $96.3 million for 1956 was 5.2% higher than 1955's $91.6 million or $6.15 a share. Sales rose by 6.8%, from $416.3 million to $444.7 million.

Primary production facilities were operated at capacity throughout the year. Total ore production at Sudbury reached a record 15.5 million tons. Nickel deliveries totaled 286.1 million lb., and copper 271.3 million lb.

The Manitoba project will add 385 million lb. of annual nickel production capacity.

Primary ore reserves, exclusive of Manitoba, stood at a new high of 264,223,823 short tons at Dec. 31, 1956, compared with 262,369,185 short tons a year earlier. Nickel-copper content of reserves was slightly higher at the 1956 year end.

INTERNATIONAL NICKEL — Company produces more than 60% of the free world's nickel output. Development of properties in Manitoba should assure maintenance of this rate and, along with other expansion, will increase mining capacity by 35%. Uses for nickel are expected to widen substantially when additional supplies are available, suggesting long-range upward trend in this company's profits.

How to Read Nestor's Special Stock Charts

INDEX OF GROWTH: The rate at which the value of the equity behind the stock is doubling as determined by the growth rate at which it entered the year. A figure of 5.8 for the present year would indicate that at its current growth rate the equity value is doubling every 5.8 years.

PRICE RANGE: The annual high, low and mean price. Monthly ranges for the current year.

UNDERVALUATION AND OVERVALUATION PRICE LEVELS: Shown by the narrow horizontal lines above and below the stock's price range indicating price at which the particular stock is adjusted as underestimating or overestimating its future rate of growth. A stock showing a fast-growth rate will sometimes anticipate growth by two or three years. In this case it may not be so attractive a purchase relatively as some other fast-growing stock that is not anticipating its growth beyond the immediate present. Other factors such as rate of growth and investment quality will also enter into the comparison an investor will want to make.

Without these UV and OV levels, a current quotation of, say, 55 or 75 would carry no significance regarding long-range value. The UV/OV levels also permit judgment as between one stock and another. They are not designated points of purchase or sale nor do they attempt to show what will be a stock's bottom or top figure in any given year.

RATE OF GROWTH: The rate as based on Nestor's tests at which the company is showing underlying or long-term growth. This will determine the price trend of the company's common stock over a period of years and in most instances the trend of dividend payments.

**Background and principles behind the selection by Nestor were discussed in a special article in FP, Jan. 10, 1953. A limited number of reprints are available on request.*

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WORLD TRADE

Opportunities and Obstacles In Our New Trading Patterns

New patterns of trade are emerging in the world. This means new opportunities in some directions and new obstacles in others.

If Canada is to take full advantage of these opportunities and suffer minimum damage from the obstacles, our industry and government must always be on the alert.

Here are important views of the vital export market as given by a leading Canadian industrialist, a senior Canadian government trade official, the U. K. High Commissioner and an executive of a World Bank organization, to a world trade conference at the annual meeting of the Canadian Manufacturers' Association held in Toronto.

Financing

By J. G. BEEVOR,
Vice-President,
International Finance Corp.

The opportunities for increased trade and investment in the less developed areas are a stimulus for investors with initiative and imagination in the free world.

The role of international financial institutions has been important since the war. The International Bank for Reconstruction and Development — commonly called the World Bank — was established in 1946. It has brought something new to the field of economic development and to international financial operations.

The World Bank financing has gone primarily for the development of basic facilities. Its lending today totals $3 billion which have gone to help finance nearly 600 projects in 44 countries. But only about 10% of that total has gone toward financing industrial development. The World Bank's Charter restricts it to lending to governments or lending with a government guarantee.

It was out of the experience and limitations of the World Bank that the idea grew for an International Finance Corporation which would specifically finance private enterprise when the necessary capital could not be raised wholly through normal private channels.

Three Aims

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We hope to achieve our purpose in three general ways:

- By investing along with private investors — without government guarantee — in productive private enterprise in the less developed countries;
- By serving as a clearing house to bring together investment opportunities, private capital (domestic and foreign) and experienced management; and
- By using our offices wherever possible to help improve the climate for private enterprise and investment in member countries.

We intend in our early years to finance only enterprises located in the less developed areas—Africa, Asia, Australia or Latin America — and, of course, only those situated in one of IFC's member countries.

Consequently, we cannot in our early years consider financing enterprises in Canada or the U.S. but we can of course in principle assist in financing Canadian-owned enterprises in the less developed areas.

IFC will consider either the expansion or modernization of an existing enterprise or the creation of a new one. During its early years it will make its investments in enterprises which are predominantly industrial, including mining enterprises in which the prospecting work has been done and the necessary ore reserves have been proved.

Most of the 30 or 40 projects presently under active consideration by IFC represent the fundamental industries — forest products, textiles, cement, mining, chemicals and engineering. There are some involving forms of manufacturing and processing.

The sponsors come not only from the industrialized countries, the U. S. and Canada and Western Europe, but also from the less developed countries.

Since forest products and mining are likely to continue to figure prominently in our projects, we shall co-operate with Canadian companies or Canadian consultants.

We believe there is increasing realization of the possibilities and prospects which the growing market in a developing country offers to a bold and resourceful concern.

In some of the less developed countries there is now appearing a better background of basic development against which new industrial enterprises can be considered with reasonable confidence in their future prospects.

It is no easy thing to set up a new enterprise in an undeveloped area of the world. Nobody knows this better than you Canadians, who for years have been so active and so successful in developing your own vast territories and resources.

The first essential is good planning and competent management. The second is to secure the cooperation of people in the country of investment, including participation by local investors and the assistance of government or regional authorities. The third is the existence of a reasonably favorable climate for foreign private investment.

When approached by a company which is foreign in the sense of foreign to the country of investment, we can sometimes suggest to them ways of finding local investors in that country to join in with them.

We hope that IFC will be able to help to improve the investment climate in a country where improvement is needed.

The measure of IFC's success will not be the amount of money which we can profitably invest ourselves, but the extent to which

(Continued on page 35)

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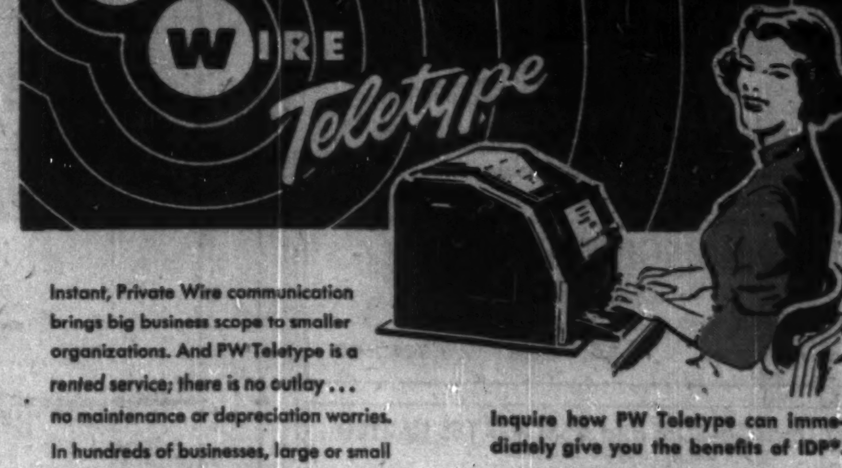

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Company Report

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Public Utilities

EAST KOOTENAY POWER CO., Fernie, B.C., net profit of $146,568 for year ended March 31, 1957, was 11.2% lower than previous fiscal year's $165,123.

Decrease in output and revenue was due to drop in sales to **Calgary Power,** to supplying less emergency power to **Consolidated Mining & Smelting Co.** and to drop in consumption on the part of coal mines, says President J. B. Woodyatt.

Gross system output was 92,430,815 kwh or 10.9% less than previous year's 103,775,880 kwh. Hydro plants generated 89,991,700 kwh compared with 101,468,400 kwh or 11.3% in previous year. Sentinel steam plant generated 154,000 kwh (1,717,900 kwh).

A five-year contract entered into with **British Columbia Power Commission** to supply their interconnection in the Windermere Valley should prove mutually beneficial, company says.

Annual meeting is June 28.

INCOME ACCOUNT

Years Ended Mar. 31:	1957	1956
Total revenue	$969,964	$960,703
Net earnings	550,386	581,482
Less: Interest	112,993	119,359
Depreciation	180,000	180,000
Income tax	111,825	117,000
Net profit	146,568	165,123
Less: Pref. divd.	17,500	....
Net surplus	129,068	165,123

Note—Co.'s report shows net profit of $148,087 in 1957, $175,938 in 1956, including profit or loss on sale of investments and profit on redemption of mtge. bds.

Times Interest Earned:		
Before deprec.	4.87	4.87
After deprec.	3.28	3.36
Earnings per Share and Dividend Record:		
Pref.: Earned	$14.66	$16.51
Paid	1.75	....
Com.: Earned	2.35	3.17
None paid.		

Dividend arrears on pref. shs. amounted to $175.00 per sh. as at June 30, 1957.

No. o/s shs. at Mar. 31:		
Pref.	10,000	10,000
Com.	30,000	30,000

CONDENSED BALANCE SHEET

As at Mar. 31:	1957	1956
Cash & mkt. secs.	$632,862	$528,687
Accts. rec.	98,527	89,865
Inventories	80,303	57,283
Total curr. assets	811,692	675,835
Prep. exps., etc.§	8,108	19,969
Co.'s bonds	73,762	51,649
Fixed assets‡	6,640,538	6,536,634
Total assets	7,534,109	7,284,087
Accts., etc., pay.	43,519	21,380
Bond & debent. int.	46,200	47,820
Taxes	83,574	87,096
Total curr. liab.	173,293	156,396
Deprec. res.	2,433,517	2,256,088
Funded debt	2,800,000	2,875,000
Capital stock	1,150,000	1,150,000
Surplus	977,290	846,703
‡After depr. of	......	......
§Incl. in curr. assets in co.'s report.		
Working capital	638,399	519,539

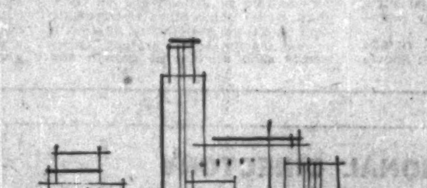
The Cloak and Dagger

...are "old hat"

We know all about the "underground movement", but we don't use the cloak and dagger. In our operations we are modern as tomorrow. We work with Canadians in every industry and public utility to ensure safety, security and growth.

For instance, we are quietly but effectively helping many communities and business enterprises as suppliers of Delavaud cast iron pipe for water and gas distribution, and Hyprescon pipe for water transmission.

Indeed, as Canada's oldest and largest supplier of these two types of pipe, we are pioneers in the underground movement.



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WORLD TRADE

Opportunities and Obstacles

(Continued from page 34)

our activities generate an increased flow of international private investment from other sources.

U. K. Trade

By SIR SAVILLE GARNER
U. K. High Commissioner to Canada

U. K. trade with Canada has got to be increased. And it has got to be increased for two reasons—yours and ours.

Ours because we cannot be in a strong position until we have built up further our reserves of gold and dollars — to support our world trade and to cushion us against any vicissitudes that may affect world prosperity.

Yours because you want to sell to us, but in the long run cannot hope to do so until trade is more in balance: at present you already sell to us almost twice as much as you buy.

The efforts of our manufacturers and exporters and their representatives in Canada are sometimes decried. Many of the criticisms of their efforts are well intended and constructive, rightly drawing attention to points of design, performance and delivery which must be remedied if further progress is to be made. But very great efforts have been made with great persistence by many firms and these efforts are now being rewarded. The record is not unimpressive.

Total U. K. exports to all markets increased by a quarter in volume between 1953 and 1956. In this highly competitive market of Canada during 1956 we increased our exports by over 20% by value over 1955. A notable fact was that the U. S. was in that year our largest single market of all the countries of the world.

This is not the achievement of indolent back-numbers. But size is not the only criterion.

The range of our exports to Canada has grown. To the traditional items have been added a diversity of new items, products of scientific and technical advance. In this way we have contributed to the impressive growth of the Canadian economy in resource development and in manufacturing industry.

Developments in Western Europe are very encouraging — there has for years been close cooperation in such organizations as OEEC and NATO. Recently there have been other signs of the nations in Western Europe coming closer together as in the Franco-German agreement about the Saar and the establishment of the Iron and Steel Community.

The Common Market

Now we have been faced with the fact that six countries have agreed to form a Common Market. A treaty has been initialled at Rome, but not yet signed. It could lead either to a breaking down of national barriers and to a great fillip to growth of international trade — or it could result in a regional community hiding behind a high tariff wall and being a clog on further development of world trade.

The U. K. could have done one of three things— stand aside, join or seek some means of association.

We do not want to stand aside, because that would mean dividing Europe and would not help the cause of Western European unity.

On the other hand, we could not join the Union as a full member. Apart from anything else, a customs union involves the adoption of a common tariff toward the outside world. This was something we were hot prepared to face in view of our obligations to our partners in the Commonwealth. We have promised free entry for Commonwealth imports under the Ottawa agreements and we have a system of Imperial Preference which we wish to continue.

But we think we have found a way of association which gets over these difficulties and have put forward proposals for an Industrial Free Trade Area. While this would accord free entry to goods from the European members of the Area, it would leave us free to impose our own tariffs on the outside world and, in this way, to safeguard the position of our Commonwealth partners.

Exports

By GEORGE L. WILCOX
President, Canadian Westinghouse Co.

Canada far outranks all the other major exporters on a per capita basis. The U. S. in 1956 exported $111 worth per capita, the U. K. $184 worth, and Germany $104 worth. But Canada in 1956 sent abroad exports to the value of almost $400 for every man, woman and child in the country.

When we look at exports, we must also look at imports. While Canada is a great exporting nation, she is also a good customer.

In recent years Canada's imports have been exceeding her exports by a considerable margin. This difference has been financed by increased capital investment in Canada from abroad. It has enabled the economy to grow and develop faster than would have been possible through domestic investment alone.

The balance between exports and imports will undoubtedly fluctuate continuously in the years to come. There is no likelihood that Canada's dependence on world trade will substantially diminish in the foreseeable future.

Because Canada has remained so thoroughly geared to world trade, has it been possible for Canadians to achieve the very high standard of living to which we have all become accustomed.

World trade is a most satisfactory way of life. Great nations like the Netherlands and the U. K. have built their greatness from world trade and commerce. Canada has done, and continues to do, the same.

We have been given a fascinating new glimpse of Canada's possible future development, through the Gordon Report.

"Canada for many years has been one of the principal trading countries of the world," says the Preliminary Report, "and for as long as can be foreseen foreign trade will be an extremely important determinant of the growth and prosperity of the Canadian economy."

Three out of every eight jobs in Canada are paid for out of foreign trade. This means that out of a total labor force of 5½ million some 2 million Canadian workers, and their families, are dependent for their living on foreign trade.

Canada's Stake

Viewed in this light, Canada's stake in world trade looms large indeed.

Canada's foreign markets are all of the countries of the world. In 1956 we exported to a total of 129 different nations. Of these, 34 were Commonwealth countries and 95 were countries outside the Commonwealth.

Our largest single customer was the U. S., which purchased from us almost $4 billion worth of goods and services.

In all, those 129 nations in 1956 purchased from us goods and services to the tune of $6.4 billion—a nice increase, over 1955, when the total was $5¾ billion.

Canadian industry falls into two broad categories: the so-called primary industries, which process, in varying degree, our own natural resources -and the manufacturing or "secondary" industries, usually defined as those which produce consumers goods or other "end products" not immediately related to our natural resources. As the Canadian economy has continued to develop, an additional category of "tertiary" industries, those related to the production of services rather than physical goods, is becoming increasingly important.

Broadly speaking the primary industries in Canada are considered to include agriculture; fishing; the forest industries; and mining, smelting and refining. These provide the bulk of Canadian exports.

Of the country's agricultural production, wheat forms a substantial part, and a large but varying quantity is exported. The export volume of Canadian wheat has ranged from 825 million bushels in 1949 to 1,066 million bushels in 1951, with an average of around 925 million bushels annually for the ten-year period from 1945 to 1954 inclusive. The Gordon report forecasts exports of an average of 950 million bushels per year.

More than 90% of Canadian newsprint production is exported. We export about half of our production of lumber.

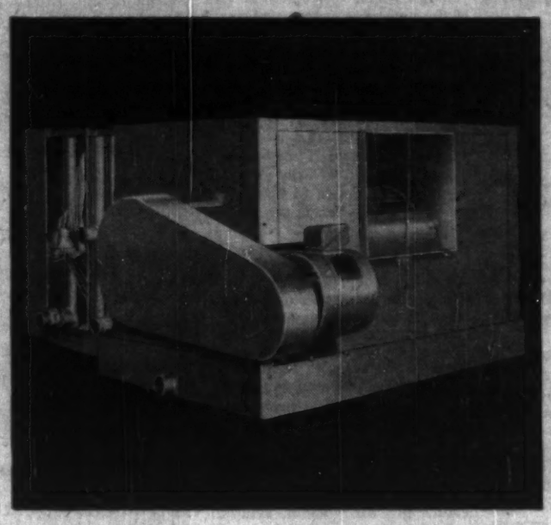
The greater part of the total production of the Canadian mining and smelting industry is exported. In 1955 total exports of metals and industrial minerals amounted to $1,108 million, or 62% of the industry's total production.

Stiff Competition

When we come to the so-called "secondary" industries, of which cotton textiles, motor vehicles and electrical apparatus and supplies are good examples, the export picture changes rad-

(Continued on page 36)

CANADIAN SIROCCO OFFERS FLEXIBILITY AND HIGH EFFICIENCY IN
EQUIPMENT TO AIR CONDITION ANY SPACE

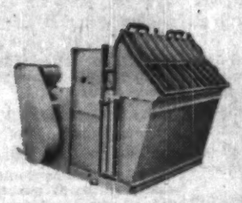


Canadian Sirocco central-station cabinet-type air conditioning units cool and dehumidify in summer using chilled water, direct-expanded refrigerants, or brines; and heat and humidify in winter with steam or hot water. Quiet slow-speed fans, aileron air-volume adjustment, and air-mixing dampers combine high efficiency with accurate control to assure perfect year-round temperatures at low operating cost.

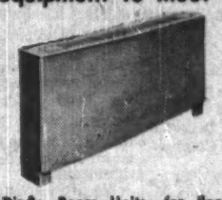
Built in sections of heavy-gauge zinc-coated steel, these units resist corrosion, make handling and erection easier. Filter boxes, piping, air discharges, and standard motors can be positioned *during installation* to meet requirements exactly. They occupy a minimum of space relative to output (capacities: 600 cfm to 48,000 cfm), and are available in horizontal or vertical arrangements, for floor or ceiling mounting.

For full details on Canadian Sirocco aid conditioning equipment—contact our nearest branch office, or write **Canadian Sirocco Products, 310 Ellis Street East, Windsor, Ontario.**

Whatever type air conditioning system you plan, we have equipment to meet your exact requirements



Multi-Zone Units provide either horizontal or vertical air flow for zone ventilating, heating, or cooling.



Diaflo Room Units, for floor or ceiling mounting, offer exclusive fan design, throwaway or cleanable-type filters. Enclosures lift off by hand.

Tonrac—Single-Stage Hermetic Centrifugal Refrigerating Machines have few moving parts, install on single level. Completely self-contained.

Canadian Sirocco products serve industry

- Air Conditioning, Heating, Ventilating Equipment
- Mechanical Draft Equipment
- Industrial Fans and Blowers
- Centrifugal Compressors
- Gyrol Fluid Drives
- Dust Collectors
- Refrigerating Machines

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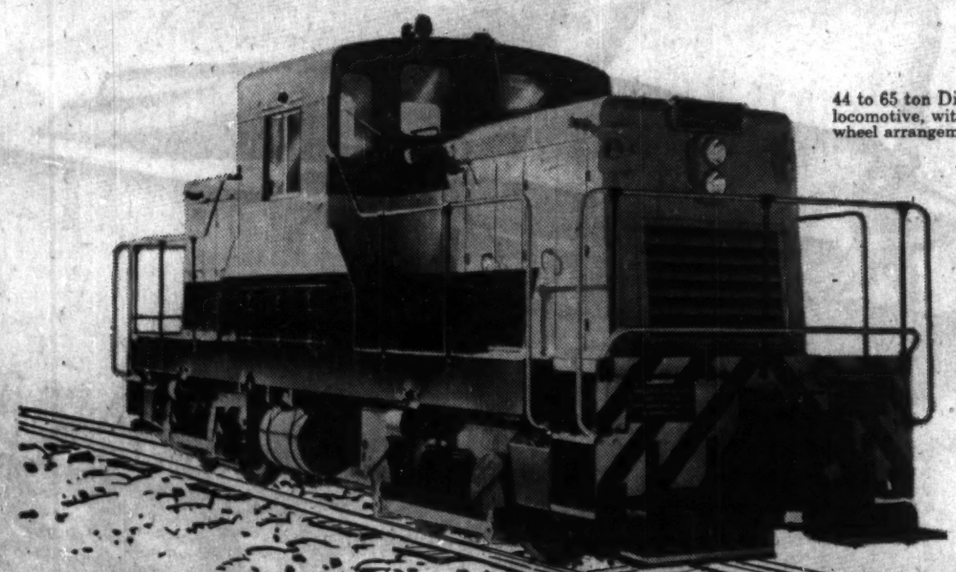
CLC presents the latest, most significant advance in rail POWER

DIESEL HYDRAULIC LOCOMOTIVES for industry and switching



44 to 65 ton Diesel Hydraulic locomotive, with 0-4-4-0 wheel arrangement.

Another history-making "first"

The Canadian Locomotive Company are Canada's pioneer locomotive builders. First to build a steam locomotive in Canada, they were also first with a Canadian-built Diesel-Electric locomotive, and the FIRST IN THE WORLD to build a Diesel electric road locomotive. Now Canadian Locomotive registers another "first" with a Canadian designed and built Diesel Hydraulic locomotive. The introduction of the Diesel Hydraulic, with the operating efficiency and economies it offers, marks another important milestone in the history of achievement and service to Canadian Industry from CLC — Canada's leading builders of road, switching and industrial locomotives.

☐ Canadian Locomotive are now sole suppliers of Davenport Besler and Porter-designed locomotives and spare parts. Through the acquisition of these world-famous lines, CLC services and facilities are now extended to all types of industry, anywhere in the world.

DIESEL HYDRAULIC LOCOMOTIVES OFFER
smooth power - operating economy - easy maintenance

Diesel Hydraulic locomotives use exactly the same principle of power transference to the driving wheels, as does the automatic transmission of a motor car. Since there is no rigid connection between engine and wheels, possible damage to the transmission or engine due to coupling, is eliminated.

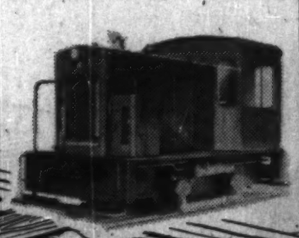
Specialized Facilities and Personnel are not required to service and maintain Diesel Hydraulic Drive Locomotives. Due to the absence of electrical rotating equipment, it is not necessary to maintain stocks of spare renewal parts such as, brushes, relay contacts etc.

Diesel Hydraulic Locomotives are built in the following sizes:

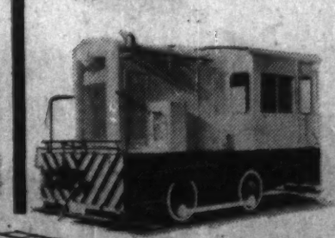
12 — 15 tons	20 — 25 tons
30 — 35 tons	40 tons
44 tons	50 — 65 tons

CLC also build:
Diesel Mechanical
Steam and Steam Fireless and
Diesel Electric Locomotives

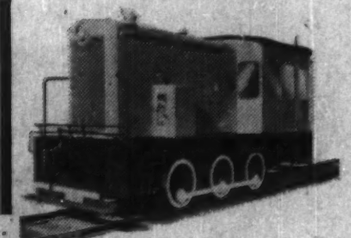
15 ton, 0-4-0 Diesel Hydraulic switching locomotive—typical of the class of locomotive used for switching all over the world.



40 ton, 0-4-0, 300 h.p. Diesel Hydraulic locomotive for medium duty switching service.



40 ton, 0-6-0, 300 h.p. Diesel Hydraulic switching locomotive.



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Canadian Locomotive Company Ltd.
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WORLD TRADE

Opportunities and Obstacles

(Continued from page 35)

ically. These producers do not share directly in the export business of the country to any such substantial extent.

The Gordon Commission estimates that in 1955 only 6% of the total output of these industries was exported.

This low ratio of exports to total sales experienced by secondary industry is the result of market forces strongly conditioned by restrictive commercial policies of foreign countries, chief of which is the tariff.

For our raw materials and semi-finished products there appears to be a wide and growing demand throughout the world. Their supply is dependable, of high quality and they do not compete substantially with the domestic production of other countries.

The situation is different with manufactured goods produced by our secondary industries. Numerous countries either do make, or would like to make, these same products. And, since so many countries these days are seeking to create more jobs, at higher wages, believing that increased industrialization will raise their standards of living, our manufactured goods are competing in an increasingly resistant trade environment. It is not surprising that our secondary industries encounter restrictive commercial policies abroad, when they attempt to export their products.

Reciprocal agreements with other countries could have the net effect of reducing the prosperity of a large part of our secondary industry, rather than enhancing it.

This leaves the businessman who is engaged in secondary industry in a peculiar quandary regarding exports.

The electrical manufacturing industry exports a surprising quantity of its products. This is done mainly by watching for opportunities and taking the fullest possible advantage of them. There is fierce competition among all of these countries for the world

markets for electrical goods

World trade is a major concern and a great boon to every Canadian business, to every Canadian employer and employee, whether directly engaged in a major exporting industry or not.

The benefits of export are derived in the last analysis by the economy as a whole. A major part of secondary industry exists to support the activities and operations of the primary industries. So it draws its business and support from whatever benefits them.

In the many coming changes in the world I foresee numerous possibilities for greater export of Canadian finished products—provided we are on the alert for opportunities, and are willing to take the business risks with them. If we keep on knocking on many doors some will open. Among those already ajar, some will open wider under pressure.

Government

By MITCHELL W. SHARP
Deputy Minister of Trade and Commerce

The role of the government in export trade is:

1—Negotiate trade agreements and arrangements to ensure as favorable entry as possible for Canadian goods into external markets;

2—Provide information about the legal requirements for entry of Canadian goods into external markets;

3—Assist Canadian exporters to get fair treatment in other countries;

4—Provide reports on market conditions abroad, in general and for particular products;

5—Give help to Canadian exporters on the spot in external markets, through trade exhibitions and through the personal services of the Trade Commissioners;

6—Consult with Canadian companies, on request, to help improve their export position;

7—Provide export credits insurance against the special risks of foreign trade.

Except for export credits insurance, this service is available without specific charge to Canadian industry. It is part of the general tax bill. It is available because Parliament has recognized the importance of export trade to the standard of living of every Canadian.

We hope that more Canadian businessmen will visit foreign markets and find out for themselves that there is no better way of selling their goods.

Export selling is not like domestic selling. The businessman should not try to go it alone. In most cases he can do much better if he calls upon the services of the Department of Trade and Commerce at every stage up to the point of sale.

It is a major and essential task of the government to maintain an efficient network of trade arrangements with other countries. Exporters must know as much as possible of the laws and regulations which apply to their products in other markets. They require reasonable security that arbitrary action will not be taken against them by other governments. They desire to obtain the most favorable terms possible in foreign countries with respect to tariffs and restrictions.

The attainment of these objectives on behalf of our exporters is a primary purpose of our program of trade agreements.

Canada today exchanges most-favored-nation treatment in all trade matters with almost all countries in the world, in addition to our long-standing preferential treaty arrangements with the Commonwealth.

In some cases, where we had particular export interests to safeguard and promote, our agreements provided special guarantees for Canadian products—for example, as a result of a trade agreement our major exports to Japan are assured at all times of non - discriminatory treatment, and this has been of benefit to all sectors of our economy.

As a result of various rounds of tariff negotiations conducted in recent years, substantial progress has been made in expanding levels of world trade. The tariffs facing Canadian exports in all our major markets have been reduced significantly.

We are moving into a new era in international trade. The world is growing richer. At the same time, new relationships are emerging.

The pace of industrialization is being stepped up everywhere and this leads to increasing opportunities for trade.

These developments are basically favorable to Canada's export trade. We shall have to be on our toes to take advantage of them.

The pattern of Canadian exports has changed substantially in recent years and is likely to continue to change. Some markets have developed and will develop more rapidly than others. Similarly, some Canadian products are likely to gain.

A continued rise in world productivity and purchasing power should have the effect of increasing the demand for Canadian products. Naturally enough, this demand is likely to be concentrated mainly upon industrial materials, but is should at the same time result in growing external markets for Canadian manufactured goods and foodstuffs.

Progress in the removal of quantitative restrictions against dollar goods imposed for balance of payments reasons is likely to continue.

All countries continue to regard their balance of payments restrictions as temporary and almost every month some country takes another step forward toward liberalization. Import quotas and restrictions are always costly for the country which applies them.

The most important current developments in the field of international economic relations are the proposals for a European Common Market and a Free Trade Area, now being considered. If these new European arrangements are accompanied by further progress in removing trade barriers with the rest of the world, they can make a substantial contribution both in strengthening the European economy and world trade generally.

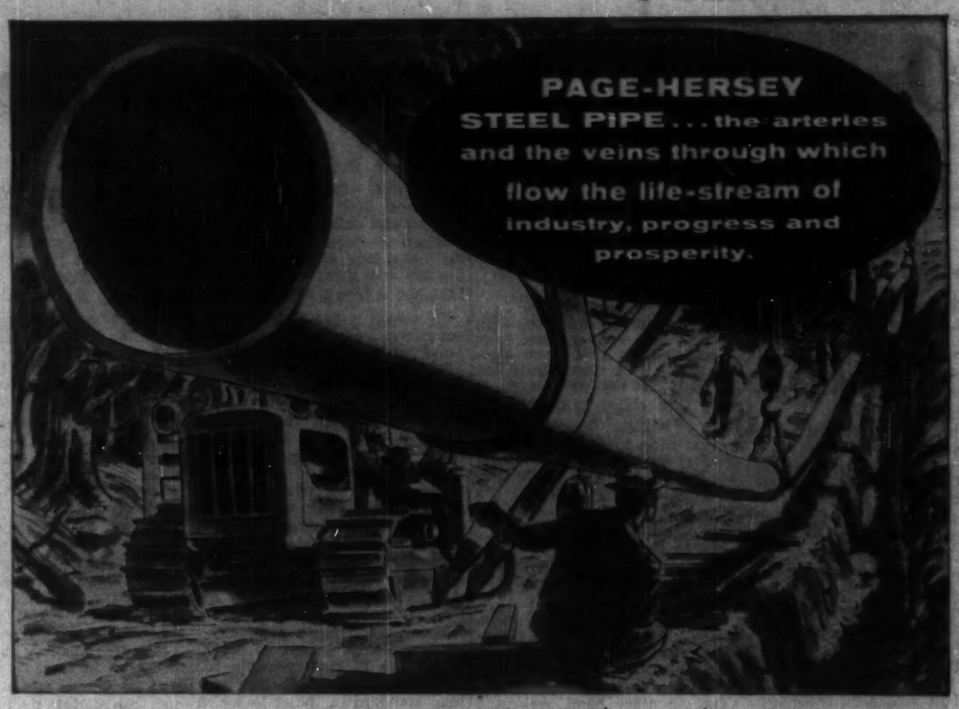
In the long-run, a vast new market would be created with a population of over 200 million, with rising standards of living and increased import requirements.

The European Common Market holds out the hope of new opportunities for Canadian trade.

The government places no obstacles in the path of trading with Communist countries, subject only to the need for controlling exports of strategic products. The government welcomes trade with Soviet countries in non-strategic products. We are making vigorous efforts to expand our trade with these countries.

We will never be in a position to tell other countries what to buy from us, but we can ensure that we offer them the best products of the Canadian economy at acceptable prices.

There are markets in many parts of the world, including markets for manufactured goods, which are not being as vigorously explored as they might be by Canadians. There needs to be a great deal more effort made by Canadian businessmen to cultivate foreign markets at first-hand before we reach conclusions about how far we are able to go as an exporter of manufactured goods.



Page-Hersey STEEL PIPE carries oil and gas thousands of miles for nation-wide distribution. Prosperity follows their course.

In oil fields and mines, in ships, trains, planes and motor transportation . . . in factories and on farms, in office buildings, hospitals, theatres, homes . . . in all types of buildings and for countless purposes . . . day in and year out, Page-Hersey Steel Pipe is serving the nation every minute of every day.

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To create an aircraft

Speed, comfort, and operating efficiency in a modern airliner depend on sound design and engineering skill. The recent TCA order for Vanguards, to extend the excellent service already provided by their world-beating Viscounts, is a tribute to Vickers' leadership in the turbo-props field. In producing aircraft for defence, too, like the four-jet Valiant and the supersonic Scimitar naval fighter-bomber, Vickers carry forward the tradition of the Wellington and the immortal Spitfire.

Courageous Immigrants

Nuns Found Pattern-Setting Hospital

By LESLIE WILSON

A little band of immigrants is building a hospital which may prove to be a pattern-setter in the development of "homes" for the sick in Canada.

The immigrants are Dutch nuns, Missionary Sisters of the Precious Blood, whose mother house is at Aarle-Rixtel in The Netherlands.

The hospital: St. Bernard's Convalescent Hospital in the Toronto suburb of Willowdale.

Why pattern-setting?

Per patient cost in the convalescent hospital is about $8 a day as opposed to $14-$16 in public general hospitals.

Convalescent hospitals can be built at a cost of about $10,000 a bed as opposed to $15,000-$17,000 for public general hospitals.

Many hospital officials predict an upsurge of demand for hospital beds with the adoption of national health insurance, now apparently just over the horizon.

The convalescent hospital has been largely neglected in Canada, but not in the U. S. or Europe. Besides St. Bernard's, there's only one other general convalescent hospital in Ontario (St. John's, Newtonbrook).

It's suggested that the building of convalescent hospitals, which can take a portion of the patients now filling general hospital beds, may be a partial answer to the cost problem; and it's certain that the operation of St. Bernard's will be watched and studied, in this connection, by provincial and federal health officials.

Who are the Missionary Sisters of the Precious Blood?

Worldwide Order

They're members of an order of 1,200, which is scattered about the world, from Europe to Africa to the East Indies, engaged largely in medical work. In the order are dentists, nurses and teachers; some members are in medical school.

The sisters connected with St. Bernard's came to Canada in 1951 at the request of a group in Ajax, Ont., to take over a 25-bed hospital there.

This arrangement fell through and the eight sisters (there are now 15) were left "high and dry."

As Mother Superior Ethelberta puts it:

"Among the population arose a difference of opinion concerning the nurses for the new hospital.

"It came to a public vote in which one third — the Roman Catholics—were for the sisters, and the rest for lay nurses.

"It is understandable that everyone wants his own nurses; but we thought it a pity that this question was not settled before our arrival."

RESTFUL GARDEN of St. Bernard's Hospital, Toronto.

Catholic groups in Toronto took them in and after a few months, by nursing services, by teaching music and languages, they became self-supporting.

A small "drive" netted them $25,000, with which they purchased a house in west-central Toronto.

This house was too small to be operated as a hospital; and operation of a hospital was their objective.

Lucky Break

In April, 1954, they had a stroke of luck. A house built in the 1920's by the late millionaire mining broker Hamilton B. Wills, was put on the market for $150,000.

The house was a pink-stuccoed showplace, 20 rooms, 19 landscaped acres complete with magnolia trees; built and furnished in "Italian Renaissance" style.

For five years it had been operated as a hospital for alcoholics; it would be ideal for convalescents.

By this time, the sisters had an "advisory board," headed by E. H. Streeter, **Guaranty Trust Co.** On Mr. Streeter's suggestion, **Harris, MacKeen, Goss & Co.** (now **Goss & Co.**) floated and sold a $175,000 bond issue.

The sisters took over in June, and cleaned, painted and scrubbed for six weeks.

In August, the hospital was opened by Premier Frost. Soon the hospital was filled to its capacity of 20 patients in semi-private rooms.

In its three years of operation, St. Bernard's has taken 152 patients. Five have applied for admission for every one for which space was available.

"We take postoperative patients, patients with fractures (we've had 17 with broken hips), patients who need nursing care after serious illness, stroke patients," says Mother Ethelberta.

Constant pressure for additional space has prompted a decision to enlarge the hospital.

Plans were drawn for a 52-bed wing adjacent to the present building, to include private rooms, public wards, and administrative and dispensary space.

So Far: $180,000

Cost of the new wing will be about $500,000 of which $368,000 is being raised by public subscription (government grants will supply the rest). Receipts are now about $180,000.

Hospital officials point to two main reasons for the slow development of the general hospital for the convalescent in Canada:

- It's been overshadowed by the hospital for the chronically ill and by the specialized convalescent hospital.
- Standards of hospital care now accepted as "normal" are developments of the last 10 years.

In 1947, per patient costs in Canadian public general hospitals averaged less than $5 a day.

Since that date, ancillary facilities once regarded as "luxuries" —cobalt "bombs," extensive laboratories, complex X-ray equipment—have now become necessities. Costs have more t han tripled.

"The price rises which are the main argument for the building of general convalescent hospitals are sudden and recent rises," FP was told.

In Ontario, 29 institutions are classed as "hospitals for the chronically ill." The requisite Act restricts them to patients "suffering from any chronic illness requiring treatment of a long-term nature." Per diem costs are about $6.

Eleven institutions in Ontario are classed as "convalescent hospitals."

However, of these, five are summer camps run by the Ontario Society for Crippled Children; one gives "boarding care"; one specializes in the care of

(Continued on page 38)

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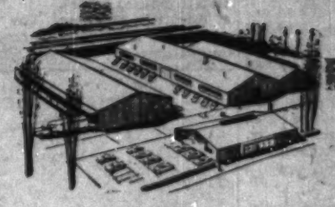

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VICKERS MONTREAL THE CANADIAN MEMBERS OF THE VICKERS GROUP

There's a 'Boom' Brewing in the U.K.

By DONALD R. GORDON

LONDON, Eng. — Whether you are a buyer or a seller, things are happening in Britain that will affect you.

In brief, the aged isle, Suez notwithstanding, is experiencing one of its best years since the war.

Although no one is sounding any trumpets yet, it is expected that if current trends continue, the country will be in best ever financial shape by year end.

This means more to Canadians than is generally realized. For firms dealing in imported goods, the upsurge in the U. K. economy promises some sharp improvements in the standard headaches of trade with Britain.

For example:

1. Deliveries will improve.
2. Prices will go down.
3. Quality and style will grow more competitive.

The reasons: Bigger domestic sales are adding up to sufficient demand in many industries to justify capital expansion.

The extra facilities are increasing output (better deliveries), cutting unit costs (lower prices), and encouraging more competitive marketing and product design.

And for the export trade — especially valuable as a counter balance to Canada's growing U. S. dependence — the U. K. market promises some ripe plums.

Initially it is likely that sterling restrictions will remain, and thus curtail unlimited buying in the dollar market, but as the economy firms up, chances of sterling being freed are brightening.

And with this comes the prospect of unleashed buying power from a people already well conditioned to the tradition that North American goods are worth having.

In a typically British way, the data on the slow growth of this buying and selling power is carefully scattered.

No single agency is releasing composite reports.

An FP survey seeking the solid signs of economic progress touched on several dozen different sources before coming up with any national pulse rate.

Major ones:

1. Gross fixed investment in the U. K. is expected to rise by £50 million at 1954 factor cost (roughly $135 million).
2. Exports are forecast at £220 million more than 1956 (roughly $600 million higher).
3. Consumer expenditure is expected to run £290 million ahead of a year ago, an $800 million increase.
4. Imports are forecast £150 million higher, up $405 million.
5. Gross domestic product is estimated at least £400 million ahead of 1956 ($1 billion).

Translated into real terms these hard forecasts, made by 67 of Britain's top economists for the Royal Statistical Society, come from things like this —

● **Record production:** Basic steel output is up 4.2% for the first four months this year, with steel exports a whopping 23% higher.

Atomic power plants have carved a brand new market with more than $135 million worth already on order for foreign customers alone.

Automobile production and exports are stepping up quickly after a slow start (auto exports in April were $10 million ahead of a year ago).

Aircraft orders total some $600 million for airlines alone with plants adding to capacity daily.

Shipyard output is expected to top 1.75 million tons this year — biggest since the war.

● **Labor harmony:** Surprisingly, especially in the light of recurring alarmist reports, Britain's workmen are doing a bang-up job.

For example, the nation's miners digging vital coal chalked up production for the first 20 weeks of this year close to 3 million tons higher than 1956.

Man shift figures included one week at 3.47 tons, the highest ever recorded.

Labor peace prospects look promising now, following increases of 6½% for some 3 million engineering employees, who guaranteed no strikes for a year. (The engineers generally set the pace in British labor).

● **Effective planning:** The current boom is being built on solid foundations.

Management has been pushing record sums back into capital projects — streamlined plants, increasing capacity, eliminating obsolete methods and machines.

For example, Britain's long-time languishing textile industry has just finished a close to 10-year face lifting, which saw dividends resumed this year for the first time in the last five for several major producers.

In basic steel, the new British plant in Wales is one of the best in the world (rival German industrialists who inspected it this month said they had nothing to match it).

Similarly long-range planning has put firms like **Vickers-Armstrong Aircraft, George Brown Shipyards, Jaguar, Imperial Chemical Industries** and the new merged **Courtaulds-British Celanese**, giant in man-made fibres in a position of world leadership in each of their fields.

Their order books are bulging, and they have projects on the drawing board that will keep them prosperous for years.

On the selling side, industry is shelling out extra money for competition in world markets.

Britain is represented at every major trade fair on a scale previously unequalled. Trade officials say it is already paying off fat dividends.

"Certainly you can gather enough gloomy talk to conclude that the country is going to hell in a handbasket," one trade official told FP.

"But against this are some very encouraging results.

"To a certain extent it's the same as when newspapers only talk about accidents — the alarm is getting the attention and the progress is being achieved."

Nuns Start Convalescent Hospital

(Continued from page 17)

paraplegics, one in that of children and two in that of aged persons.

(St. Bernard's, classed at the moment as a "private hospital" will become the 12th "convalescent hospital" as soon as the new wing is in operation.)

Only St. John's Convalescent Hospital gives a general convalescent care. St. John's is run by an Anglican order of nuns, the Sisters of St. John the Devine.

MOTHER ETHELBERTA

Between the Two

Those who conceive the general convalescent hospital as a type destined for expansion think of it as administering care of a standard midway between that of the public general hospital and that of the "hospital for the chronically ill."

It would take patients expected to recover, but who require a long time to recover. Costs, at present treatment standards, would be $8-$9 a day.

(Costs at St. John's are about $8.40. At St. Bernard's they're less than half this partly because, at present, the nuns aren't allocating any part of receipts to "salary.")

A major part of the saving of facilities of public general hospitals by the convalescent hospitals would be in the care of postoperative and fracture patients.

For example, the average patient's stay at all Ontario hospitals is seven days.

However, a fracture patient may remain 30 to 180 days. Proponents of the convalescent hospital argue that, in almost all cases, he could be moved from the general hospital.

Company Reports

GENERAL FOODS CORP., New York, net earnings of $42,399,859 for year ended March 31, 1957, were 8.7% higher than previous year's $39,000,590.

Subsidiary, **General Foods Ltd.**, operates three plants in Canada. It moved its head office to new quarters in Toronto during 1956.

A new distribution centre is to be opened in Moncton, N.B.

The new Cobourg, Ont., plant, which was completed at the close of the 1956 fiscal year, is marketing seven new desserts products under the Jell-O brand name.

During first half of fiscal year, wholesale prices for regular coffees increased 9c lb then declined 14½c lb. Lower price was caused by unusually large crops of green coffees in Central America and Mexico, and recent elimination of the 10% sales tax from certain food items.

A total of 41 items marketed by company in Canada were affected by the recent federal budget, and company reduced wholesale prices.

WESTERN HOMES LTD., Winnipeg, net profit of $34,196 for 1956 was 2.8% higher than 1955's $33,256.

Approximately 90% of invested capital is in first mortgage loans, says President Willis Argue.

Dividend rate has been increased to $1.25 per share, from $1.05.

	1956	1955
Liabs. to public, etc.*	$240,606	$205,330
Sh'holders equity	912,828	888,911
*Secured by:		
Mtges. & sls. agree.	1,066,350	1,001,936
Realty	12,405	14,127
Office equip.	599	739
Liquid assets	82,080	87,439
Total	1,161,434	1,104,241
‡Includes bonds and stocks.		
Net profit	34,196	33,256
Earned per Share†	$1.76	$1.71
Paid	1.05	1.05
†Based on shares subscribed.		

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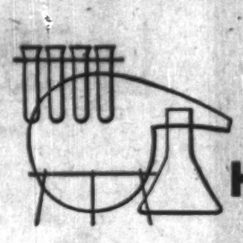

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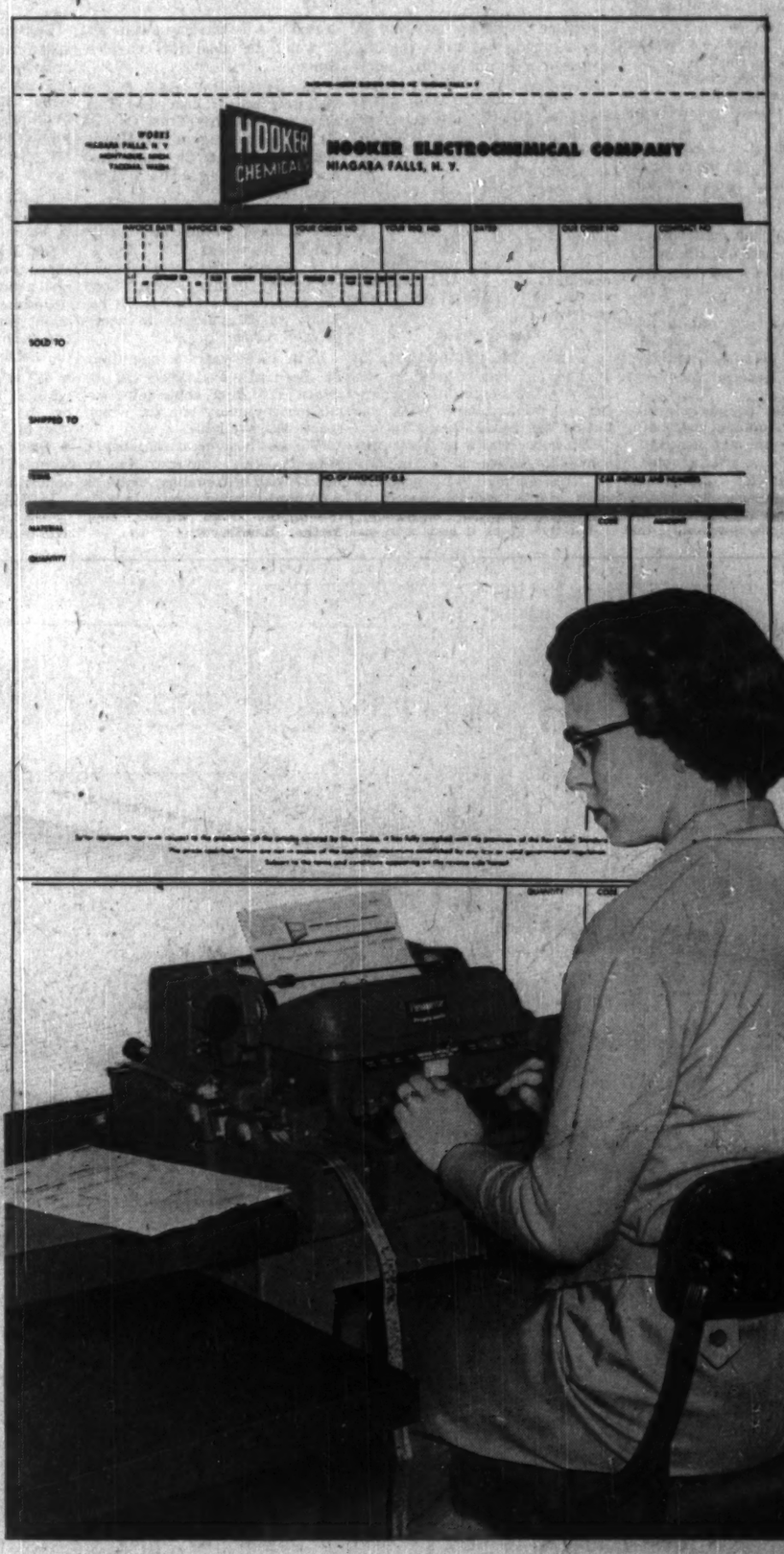
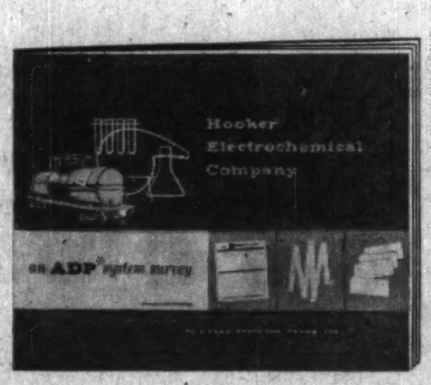
A Moore 10-part Order and a 5-part Invoice were designed to make the system dovetail, with copies carrying needed information or instructions to every location. A selective tape, containing statistical data, prepares punched cards automatically and, from these, period reports and special analyses are run off.

The Moore man, using Moore facilities, helped Hooker with scientific design and manufacture of forms to fit the system of Automated Data Processing.





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Market Comment

What stocks and bonds are doing and what prominent observers say

Stock markets remain highly vulnerable to anything that might be construed as at all adverse to general business outlook. At the same time it fails to reflect most bullish news developments. But to balance off this performance it has showed a reassuring ability to snap out of the 3-to-6 point market tumbles within a matter of hours.

The long-awaited Tariff Board recommendations growing out of an extensive review of the steel and steel pipe tariff situation have been announced.

They favor manufacturers of steel pipe and heavy structural steel. Outstanding market examples of such companies are **Page-Hersey Tubes** and **Algoma Steel Corp.** both market highlights over recent weeks.

* * *

H. R. McCUAIG, McCuaig Bros. & Co., Montreal.

The election passed off with hardly a ripple in the stock markets. The exceptions were some opening selling in gas pipeline stocks, which soon recovered their losses, and on Friday, June 14, buying spread into the textile group. Presumably based on hopes for tariff readjustments, this would seem somewhat premature with the P.C.'s in a minority position.

All in all, the markets expressed the general feeling that there would be little change as far as business is concerned under a new Progressive Conservative government.

Interest has been concentrated on certain groups like the gas pipelines and in specific stocks like **Dosco** and **Hiram Walker.** The recent strength in the New York averages (D-J Ind. 510) has given the illusion of greater strength than was in fact warranted.

Important Canadian stock groups e.g. papers and base metals, have been able to make little progress, and have done well to hold up in the face of the 5% U. S. dollar discount and falling metal prices. However, the fact that adverse news has had relatively little effect on such stocks in recent weeks is interesting in that it indicates their holders are not in a mood to sell, and are tending to look beyond the immediate difficulties.

The chief factors presently operative do not suggest a broad swing up or down, but rather a continuation of the piecemeal moves which have been taking place over the past year.

The atmosphere is such that any individual change for the better could be quickly reflected in depressed industrial issues, (viz. the recent Weston move from 21 to 27) and speculative focus could readily converge on such a development as the new Ungaya area of Quebec.

The overworked word "selective" is likely to be descriptive for some time.

* * *

H. BOS, McLeod, Young, Weir & Co., Toronto.

In the past few months the stock market has shown considerable strength in those sections of our industry that can look forward to continued expansion and increased profits. In this category fall the oils, pipelines, public utilities, steels and chain food stores. The outlook for these groups is favorable and the shares of these companies should perform well, especially over the long term.

That expansion has to be combined with increased profits to attract investors is apparent in the pulp and paper group. The much publicized possible overexpansion of newsprint capacity and the high premium of the Canadian dollar have diverted investors from the pulp and paper shares. It seems, however, that this group may have reached its low point.

The March increase of $4 per ton in newsprint, while not completely offsetting the exchange loss, should be reflected in better second quarter earnings as compared with the first quarter of 1957.

Moreover, the overcapacity in newsprint may not be nearly as serious as was originally estimated. The patient investor may find it advantageous to watch the pulp and paper stocks closely for buying opportunities.

The base metal group is currently depressed and will likely remain so until metal prices show signs of stabilizing. Exceptions in this group have been the nickel, aluminum and iron ore companies. These will probably continue to attract investors, as demand for the products of these companies is increasing.

On the whole it seems likely that the stock market will continue to move along the same pattern as it has for the last few months. Individual issues will outperform the general trend, depending on earnings reports and other information of interest.

* * *

R. S. C. DONALD, Western City Co., Vancouver.

Signs of a major breakout from the general market's indecisive trend, now in its 21st month, remain hard to discern. However, the continuing firmness is encouraging, and in recent weeks it has again been clearly shown that issues which offer representation in promising Canadian developments can enjoy very considerable gains even in an otherwise uneventful market.

Outstanding among such issues are the "energy" stocks—pipelines, natural gas, oil, and possibly uranium.

In selecting the best commitments within these categories, the rapidly increasing significance of exports deserves study. Among gas pipelines, for example, those which will export a major part of their throughput may show an appreciably better growth trend than the purely domestic lines, because export markets will give them much superior expansion prospects.

Also, the chance of their earnings being seriously restricted by regulations which would in effect subsidize foreign consumers should be lessened.

For natural gas producers, the linking of Canadian gas to the rapidly expanding U. S. market should have a very beneficial effect on the value of their reserves, especially since known U. S. reserves are sufficient for little more than twenty years consumption even at current levels.

For crude oil producers, forthcoming decisions about the quantities and sources of U. S. oil imports are likely to determine the pace of the Canadian industry's development for some time to come.

While such dependence on export markets carries its dangers, it seems unlikely to be significantly diminished by political action and it also offers opportunities to the oil and gas industry that should far outweigh the dangers.

Conditions appear to favor continued outstanding performance by issues in this category even if no broader market advance seems imminent.

* * *

JOSEPH M. PECKHAM, Biggar & Crawford, Toronto.

Generally speaking, the progress of the stock market is determined by political atmosphere, corporate earnings and availability of funds for investment and speculation.

The former factors remaining satisfactory to slightly better and the full employment condition of the North American economy supplying the necessary funds, the outlook is for still higher levels of common stocks.

Of course, it should be borne in mind that the current stock market is dominated by a highly speculative spirit which in rapid succession rushes into promising situations and withdraws hastily having overexploited them.

At present, interest seems to be turning to stocks heretofore neglected such as representatives of the heavy construction industry **(Foundation Co., Dominion Bridge, Canada Cement)** as construction awards in this category continue to rise steadily.

Corporation Bonds

(Supplied by Investment Dealers' Assn. of Canada)

June 18, 1957.

Public Utility Issues	Int. Rate %	Due	Bid	Ask.	Prev. Week Bid
Alg. Cen. H.B.R.	5	'59	126	131	128
Bell Telephone	3	'72	97	100	97
Do.	4	'91	89	91	88
Bowater Pr. Co.	3½	'80	82	85	82
Brazilian Traction L. & P.	4½	'79	80	84	80
B. C. Electric	3½	'67	83	87	83
Do	3½	'68	81	83	87
Do.	4½	'91	86	89	86½
B. C. Telephone	4½	'73	92	95	91
Calgary Power	3½	'72	81	84	81
Consumers' Gas	3½	'77	102	104	101
Gatineau Pr. D	3½	'70	82½	86½	83
Gt. Lakes Pwr.	4½	'75	93	97	83
Maclaren-Quebec Power	3	'70	83	87	83
Mex. Lt. & Pr.	5	'73	94	97	94
Nat. Lt. & Pwr.	4½	'81	94	97	93½
North. Que. Pr.	4½	'87	87	90	87
Power Corp.	3½	'67	82	86	83
Quebec Power	3	'72	89	92	89
St. Maurice Pr.	3½	'79	83	86	83
Shaw. W. & Pr.	4½	'79	94	97	94
Do	3½	'73	83	86	83
Wpg. Electric	3½	'71	82½	85½	82
Industrial Issues:					
Abitibi Pr., P.	4	'74	85	90	86
Acadia-Atlantic Sugar	4	'74	82	85	83
Alum. Co. of C.	4½	'72	93	96	93
Bathurst P. & P.	5½	'73	94	97	94
•Bicroft Uran.	5	'62	92	94	92
B. A. Oil	3½	'74	81	84	82
Burns & Co.	4	'63	90	93	90
Can. Bread	4½	'67	84	87	83
Can. Cement	5½	'78	98	101	98
Can. Steamship	4	'52	92	96	92
Cdn. Breweries	4½	'81	82	86	82
Cdn. Canners	3½	'70	84	88	84
Cdn. Celanese	3	'82	87½	90½	87½
Cdn. Chem. Co.	5½	'71	87	91	87
Cdn. Industries (1954) Ltd.	3½	'74	85	88	85
Can. Oil	4	'79	82	85	83
CPR	3½	'72	83	86	83
Can. W. Lum.	4	'62	90	94	90
Cockshutt F. E.	4½	'65	86	89	84
Columbia Cell.	5	'68	92	96	93
Cons. Denison	5	'62	92½	95½	92½
•Cree Oil	5	'68	108	111	107
Dom. Fd. & Stl.	4½	'69	92	95	93
Dom. Stores	5½	'75	98	101	98
Dom. Tar & Ch.	5	'67	94	98	94
Dryden Paper	4½	'74	90	93	90
T. Eaton Acc.	4½	'74	90	92	90
T. Eaton Realty	5½	'73	96	99	96
E. B. Eddy	4	'74	81	84	81
Elk Falls Co.	5	'73	91	94	90
Faraday Uran.	5½	'62	97	100	97
Gen. Motors Ac.	4½	'69	90	93	90
Gt. Lakes Paper	5	'76	93	96	93
Gunnar Mines	5	'80	98	101	98
H. Bay O. & G.	4	'73	83	86	83
Husky Oil	5	'69	85	88	85
Imp. Tobacco	3	'70	83	86	82
Imp. Oil	3½	'75	83	86	83
Indust. Accept.	5½	'75	91	94	91
Irving Oil Co.	5½	'67	93	96	92
Loblaw Groc.	4½	'76	104	108	104
Lorado Uran.	6	'63	96	99	96
Maple L. M.	3½	'63	88	94	88
Massey-Harris	4½	'76	81	85	81
Monarch Knit.	4½	'71	69	72	70
Ont. Jockey Cl.	5½	'72	77	82	77
Phillips Elec.	5	'73	92	95	92
Price Bros.	3½	'66	88	91	88
Pronto Uranium	5	'80	93½	98½	93½
Regent Refining	4½	'75	86	89	86
St. Law. Corp.	5	'72	93½	96½	93½
Silverw'd Dair.	4	'71	83	86	84
Simpsons Ltd.	4½	'73	90	93	90
Simpsons-Sears	4½	'79	88	92	88
Steel Co.	2½	'67	83	87	83
Traders Finance	4½	'71	85	88	85
Union Accept.	5½	'68	92	96	91
Un. Gr. Grow.	3½	'70	83	86	83
Westons, Geo.	4½	'71	117½	120½	117½

•Cum. warrants.
•With warrants.

CONVERTIBLE ISSUES

Abitibi P. & P.	4½	'66	92	96	94
Anglo-Am. Exp.	5½	'75	88	93	89
Atlas Steels Ltd.	5	'67	108	114	110
Braz. Traction	4½	'71	77	83	78
Can. So. Oils	5	'61	103	110	86
CPR	3½	'66	96½	100½	96
Do.	4	'89	101	105	100
Cdn. Petrofina	4	'72	106	109	105
Cockshutt Farm	5	'68	84	87	84
Dom. Stl. & Co.	4½	'70	139	145	133
Dom. Textile	4	'66	86	91	87
Home Oils	5½	'71	110	115	108
Jupiter Oils	5	'67	85	90	86
Loblaw Groc.	4½	'76	105	110	104
N. Concord D.	5½	'65	84	90	87
N. Sup. Oils	5	'64	77	81	87
Phillips Elec.	5½	'70	100	104	99
Scurry Oils	5	'64	86	91	87
Silverw'd Dair.	5½	'72	95	100	95
Trans Emp. Oil	5½	'67	92	95	92
Triad Oils	4½	'71	94	97	95

Noiseless, Draftless, Individual Thermostatic Control

Cimco installs MODERN AIR CONDITIONING in 26 year old building

Although 26 years old the Canada Permanent Building is still one of the finest addresses in Toronto's financial district. And in keeping with this enviable reputation, the owners recently decided to make it one of the most comfortable too. They called in CIMCO and asked them to design an air conditioning system which would be noiseless, draftless, dust-free and with individual control in each office.

CIMCO not only met all these requirements but also installed the system without disturbing the staff or office routine — a "plus feature" worth noting if you are contemplating air conditioning in your present office or building.

This is the latest of many examples of Cimco's engineering skill — adapting modern air conditioning principles to existing buildings no matter how old they are. We would be glad to help you do the same. Call us now.

REFRIGERATION AIR CONDITIONING Cimco FOR OVER 40 YEARS

CANADIAN ICE MACHINE CO. LTD.

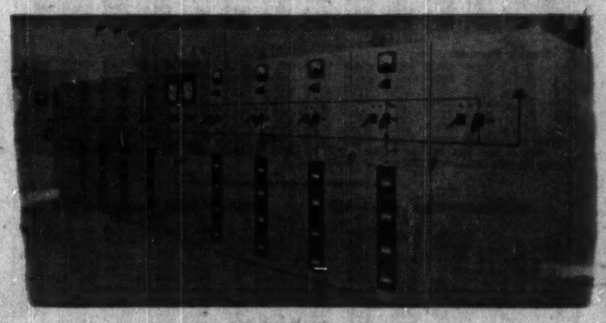
AIR CONDITIONING AND REFRIGERATION EQUIPMENT & SUPPLIES

HEAD OFFICE — 65 VILLIERS STREET, TORONTO

Branch Offices: Halifax St. John's Quebec Montreal Ottawa Toronto London Winnipeg Regina Calgary Edmonton Vancouver

The Canada Permanent Building in the heart of Toronto's financial district. The design, engineering and installation of air conditioning for the complete building was recently completed by CIMCO Air Conditioning Company, Division of Canadian Ice Machine Co. Ltd.

If power is your responsibility... share it with BROWN BOVERI

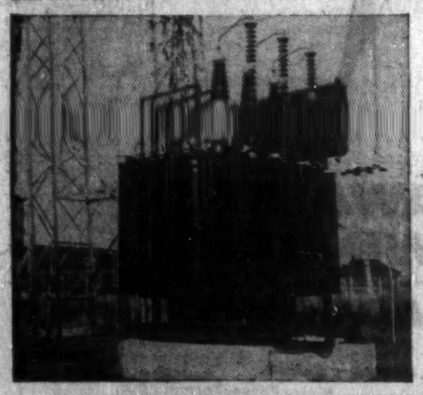


D. SWITCHGEAR

Brown Boveri's Type DB High Speed Airblast Circuit breaker is a well-known example of switchgear designed to provide the highest standards of operational safety and convenience. Brown Boveri switchgear has been chosen for many of Canada's major power installations — St. Laurence Power Project, Sir Adam Beck No. 2, etc.

E. TURBO-GENERATORS

Six 25,000 KW gas turbines similar to the pair illustrated are being supplied to Western Canada . . . four to B.C. Electric Co. Ltd. . . . two to City of Edmonton . . . plus five 10,000 KW turbines . . . two to Saskatchewan Power Corporation, Kindersley . . . one to City of Lethbridge . . . one to Canadian Utilities, Sturgeon Lake . . . one for Western Chemicals, Two Hills, Alberta. Brown Boveri is also one of the largest suppliers of steam turbines.

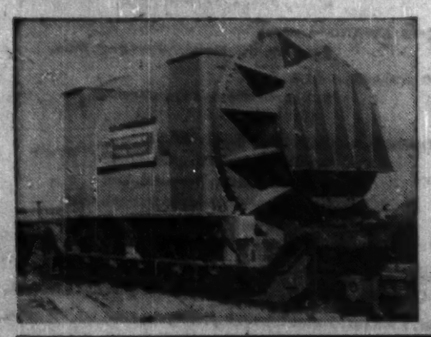


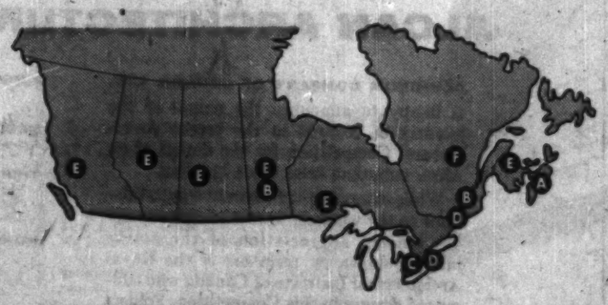
A. DISTRIBUTION TRANSFORMERS

The "BB-99" Distribution Transformer was designed by Brown Boveri to meet the standards of the Canadian utility. BB-99 installations like this one in Halifax, N.S. have been service-proved from coast-to-coast.

B. POWER TRANSFORMERS

Industries and utilities across Canada are being dependably served by Brown Boveri transformers like this 10,000 KVA 66,000/4160 volt type ONS unit, supplied to Quebec Power Co. Limited.





C. SYNCHRONOUS CONDENSERS

This 48,000 KVA 13,800 volt, 900 rpm hydrogen-cooled equipment in transit to Hydro Electric Power Commission of Ontario is typical of the many types of heavy duty rotating machinery built by Brown Boveri.

Competitive quotations across the nation have won Brown Boveri its place at Canada's major industrial projects.

Today, in every province, engineers turn to Brown Boveri for every kind of power equipment — from distribution transformers to powerful turbo generators.

Behind the Brown Boveri trade mark are 65 years of experience in the design and manufacture of equipment for the generation, distribution and utilization of electric power.

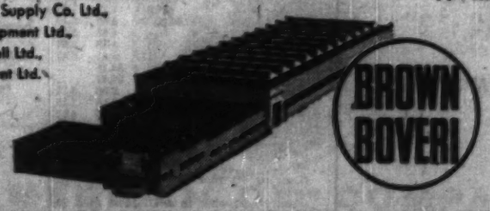
Get a quotation from

BROWN BOVERI (CANADA) LIMITED

MONTREAL - TORONTO - WINNIPEG - CALGARY

Representatives:
Winnipeg: Power & Mine Supply Co. Ltd.,
Kirkland Lake: Mine Equipment Ltd.,
Vancouver: Gordon Russell Ltd.,
Halifax: General Equipment Ltd.

Plant: ST. JOHNS, QUE.



F. HIGH VOLTAGE OUTDOOR CIRCUIT BREAKERS

Brown Boveri High Speed Airblast Circuit Breakers, provide maximum protection under all conditions for system voltages from 24 to 400 KV. 300 KV units, as above, were supplied to Hydro-Quebec for Bersimis I and II transmission lines.

B-7-8

ANNOUNCEMENT

HURON FOREST PRODUCTS CO., LIMITED

C. E. SMITH

who has been appointed Vice-President of Huron Forest Products Co., Limited. Mr. Smith is also General Manager of the McFadden Lumber Division of the Company, and is a Director and former President of the Canadian Lumberman's Association.

Record of Financing

Sales by Municipalities, Provincial and Dominion Governments. Offerings of Corporations and Securities.

DOMINION

Government of Canada Treasury Bills—Due Sept. 13, 1957, $125,000,000. Issued June 14, 1957. Sold at $99.084 to yield 3.79%.

PROVINCIAL

Castlegar Hospital Improvement District, B.C. (guar. by Prov. of B. C.)—5% debentures, due May 1, 1958-77, $215,000. Issued May 28, 1957. Bought privately by A. E. Ames & Co. Ltd.

MUNICIPAL

School Commission for Mun. of St. Gabriel, P.Q.—5½% debentures, due Mar. 1, 1958-67, $16,000. Issued May 28, 1957. Sold at $92.07 to Garneau, Boulanger, Ltée.

School Commission for Mun. of Village of Riviere-des-Prairies, P.Q. — 5% and 5½% debentures, due June 1, 1958-69-67, $125,000. Issued May 27, 1957. Sold at $96.89 to Credit Interprovincial Ltée.

Mun. of City of St. Jerome, P.Q.—5¼% debentures, due Jan. 1, 1958-77, $490,000. Issued May 27, 1957. Sold at $97.56 to J. F. Simard & Co. Ltd.

School Commission for Mun. of Shipton, P.Q.—5½% debentures, due June 1, 1958-67, $65,000. Issued May 28, 1957. Sold at $98.20 to Belanger Inc.

School Commission for Mun. of St. Damase-de-l'Islet, P.Q.—5½% debentures, due June 1, 1958-77, $111,000. Issued May 28, 1957. Sold at $97.51 to Oscar Dube & Co. Inc.

City of Peterborough, Ont.—5¼% debentures, due Dec. 31, 1957-71, $345,881. Issued June 3, 1957. Sold at $97.10 to Bell, Gouinlock & Co. Ltd. and McLeod, Young, Weir & Co. Ltd.

Portage La Prairie School District No. 10, Man.—5¼% debentures, due June 1, 1958-77, $88,500. Issued June 6, 1957. Sold at $100.16 to Mills, Spence & Co. Ltd.

Township of Murray, Ont.—6% debentures, to mature July 1, 1958-77, $76,000. Issued May 27, 1957. Sold privately to J. L. Graham & Co. Ltd. and The Canadian Bank of Commerce.

Village of Erin, Ont.—6% debentures, due Apr. 1, 1958-77, $70,000. Issued May 27, 1957. Sold privately to J. L. Graham & Co. Ltd. and The Royal Bank of Canada.

CORPORATE

North Star Oil Ltd.—5¾% sinking fund debentures, series B, to mature June 15, 1977, $6,000,000. Dated June 15, 1957. Offered at $100 plus accrued interest to yield 5.75% by Gairdner & Co. Ltd., L. G. Beaubien & Co. Ltd., Ross, Knowles & Co. Ltd., Deacon Findley Coyne Ltd., Bankers Bond Corp. Ltd., Rene-T. Leclerc, Inc., Walwyn, Stodgell & Co., Ltd., Pemberton Securities Ltd., Bache & Co., Hagar Investments Ltd., Geoffrion, Robert & Gelinas, Inc., Houston, Willoughby & Co. Ltd., Jackson, McFadyen Securities Ltd., Kippen & Co. Inc., Carlile & McCarthy, Ltd., Sydie, Sutherland & Driscoll Ltd., Jennings, Petrie & Co. Ltd., Stanbury & Co. Ltd., The Western City Co. Ltd., Graham & Co., Oldfield, Kirby & Gardner Ltd. and Burleigh & Partners Ltd.

PREFERRED

Canadian International Power Co. Ltd.—6% redeemable cumulative preferred shares, 1956 series (par value $50 per share) $5,000,000. Offered at $46 per share, to yield 6.52% by Royal Securities Corp. Ltd., Greenshields & Co. Inc., Nesbitt, Thomson & Co., Ltd., W. C. Pitfield & Co., Ltd., James Richardson & Sons, Midland Securities Corp. Ltd., F. J. Brennan & Co. Ltd., Eastern Securities Co. Ltd., L. G. Beaubien & Co. Ltd., R. A. Daly & Co. Ltd., Bache & Co. and Cornell Macgillivray Ltd.

CAPITAL

Canadian Bank of Commerce — 12,931 shares. Offered by Dominion Securities Corp. Ltd., Wood, Gundy & Co. Ltd., James Richardson & Sons, McLeod, Young, Weir & Co. Ltd., Nesbitt, Thomson & Co., Ltd., Harris & Partners Ltd., Wills, Bickle & Co. Ltd., Gairdner & Co. Ltd., Watt & Watt, Kitcat & Aitken, Govett, Sons & Co., Greenshields & Co. Inc., Royal Securities Corp. Ltd., Bell, Gouinlock & Co., Ltd., W. C. Pitfield & Co., Ltd., Bongard & Co., Mills, Spence & Co. Ltd., Midland Securities Corp. Ltd., Burns Bros. & Denton Ltd., Brawley, Cathers & Co., T. A. Richardson & Co., Cochran, Murray & Co., Ltd., L. G. Beaubien & Co., Ltd., Collier, Norris & Quinlan Ltd., Equitable Securities Canada Ltd., Savard & Hart Inc., Jones Heward Securities Ltd., Bankers Bond Corp. Ltd., R. A. Daly & Co. Ltd., Doherty Roadhouse & Co., Anderson & Co. Ltd., Draper Dobie & Co., J. R. Timmins & Co., Bartlett, Cayley & Co. Ltd., F. W. Kerr & Co., Credit Interprovincial, Ltée, Dawson, Hannaford Ltd., Oswald & Drinkwater, Fry & Co. Ltd., J. L. Graham & Co. Ltd., Walwyn, Stodgell & Co. Ltd., Osler, Hammond & Nanton Ltd., Eastern Securities Co. Ltd., G. E. Leslie & Co., Moss, Lawson & Co. Ltd., Pemberton Securities Ltd., Houston, Willoughby & Co. Ltd., Tanner Bros. Ltd., Dominick Corp. of Canada, McCuaig Bros. & Co. Ltd., Frank S. Leslie & Co., H. C. Flood & Co. Ltd., J. B. White & Co., Carlile & McCarthy Ltd., F. J. Crawford & Co. Ltd., John Graham & Co. Ltd., Davidson & Co., Casgrain & Cie Ltée, Cornell, Macgillivray Ltd., J. E. Grasett & Co., Gillespie, Hart & Co. Ltd., Oldfield, Kirby & Gardner Ltd., Stanbury & Co. Ltd., Thomson, Kernaghan & Co. Ltd., Peter D. Curry Co. Ltd., A. D. Lauder & Co. Ltd. and Gardiner, Watson, Fitzpatrick Ltd.

Unlisted Mines and Oils

(Compiled from Quotations by G. E. LESLIE & CO., Montreal) June 17, 1957

Stock	Bid	Of'r	Stock	Bid	Of'r
Abeta	7	10	Miller Cop	16	20
Americ	21	30	Natl Mal	10	12
Arnora	3	5	New Lorie	5	7
Ass Dev	16	19	Nipiron	20	25
Atlas Chib	17	21	Norbeau	60	70
Bald Mnt	64	69	Norcopr	53	62
Baraca	32	38	Nordeau	68	77
Belmont	8	12	Oklend	10	12
Brunn Ch	55	60	Ont Nic n	30	35
Cln Jav	23½	24½	Montgom	3	5
Cent Mng	60	—	Pascalis	9	12
Chib Cop	—	30	Provincial	2	4
Clinger	7	10	Que Cob	1.65	1.75
Dadson	16	24	Quedon	17	21
Derogan	2	4	Quejo	6	9
Elwood M	46	52	Rand Mal	4	7
Enterprises	8	—	St Jude	—	25
Flicka	4	7	Scott Chib	3	8
Garland	—	20	Selby Mng	—	40
Gibson	—	10	Sharbot	65	70
Glencona	3	4	So Bach	—	6
Independ	12	16	Starlight	4	7
Inter Asb	7	10	Tarpoint	3	7
Inter ex	57	62	Toro Mng	22	—
Kenmac	—	15	Wesley	13	16
Leadville	—	30	Wedro Lds	—	55
Luc-Echo	38	42	Wm Leys	8	12
Lyndvue	35	45	Western		
Main Oka	17	21	Copr	1.15	1.25
Martn Brd	26	28	Yng Dave	15	18

Commodities

	Latest week	Previous week	Same week last yr.
Cattle	$19.88	$19.63	$20.47
Hogs	31.25	31.50	25.94
Copper, lb.	.32	.32	.46
Coffee, lb.	.56½	.56¾	.56¾
Sugar, raw, lb.	.0603	.06	.0545
Hides	.16	.16	.15½
Weekly Commodity Indices			
Dow Jones	158.34	158.02	153.33
U. S. Labor	117.5	117.5	114.2
Monthly Commodity Indices			
Canada (D.B.S.)			
Retail (May)†	121.1	120.9	116.6
W'sale (Apr.)	228.4	228.4	224.5
C. F'm Pro. (Apr.)	207.5	206.8	204.4
U. S. (Mar.)	116.9	117.0	112.4
Grt. Brit. (Mar.)*	156.7	■159.6	....
Do. (Mar.)▲	138.3	■136.2	....

Note: †Cost-of-Living Index Revised to the Base of 1949=100.

Base of price quotations is as follows: Cattle-Steers, good up to 1,000 lb., to price Toronto. Copper-electrotypes, New York. Coffee No. 4 Santos, Spot Raw Sugar 96 degrees centrifugal c.i.f.

■Revised.

Gt. Britain Index Revised. Base year 1949.

*Basic materials index (excl. fuel) for nonfood mfg. ind.

▲All mfg. products other than fuel, food and tobacco.

Government Bonds

June 18, 1957. (Supplied by Investment Dealers' Assoc. of Canada)

%	Due	Bid	Ask
Govt. of Can. Bonds:			
3	Jan. 1959	97½	97¾
3	June 1960	95	95½
3	Feb. 1962	92½	92¾
3	Oct. 1963	90½	91½
3	Sept. 1966	88½	89½
3	Perpetual	■79½	81
2¾	June 1968	84½	85½
3¼	Jan. 1975/78.	84½	85½
3¼	June 1974/76.	87	88
Cdn. Nat. Railways:			
3	Jan. 1959	96½	97½
2¾	Jan. 1967	84½	86
3	Jan. 1966	88½	89½
2¾	Sept. 1969	84	85½
4½	July 1957	‡100	100½
Grand Trunk Pacific Rlwy.:			
3	Jan. 1962	■92½	94½
4	Jan. 1962	■96½	98½
Int. Bank of Reconstruct. & Development			
3½	Apr. 1968	88	90
3½	June 1969	86	88
C'wealth of Australia:			
4	Nov. 1970	88	90

%	Due	Bid	Ask
Prov. Govt. Bonds			
Alberta:			
3½	Mar. 1970	‡81	83
British Columbia:			
4½	Jan. 1969	‡97½	99½
3	Dec. 1960	93	94½
3	June 1964	87½	89½
5	Sept. 1959	‡99½	101
B. C. Power Comm.:			
3	Oct. 1967	84	86
Manitoba:			
4	Dec. 1957	‡99	100
5	Dec. 1959	■99½	100½
5½	July 1958	99½	100½
3	Oct. 1965	86	87½
New Brunswick:			
4½	Apr. 1961	‡97	99
2¾	June 1966	82	83½
3½	Sept. 1965	87½	89
5	Mar. 1970/75.	97½	98½
Nova Scotia:			
4½	Nov. 1960	‡96½	98½
5	Mar. 1960	■98½	100
3½	June 1963/65.	88	90
3	June 1956/58.	97½	98½
2¾	June 1965/68.	81½	83½

%	Due	Bid	Ask
Ontario:			
2¾	Nov. 1965/69.	82	84
4	June 1962	■95½	97½
4½	Jan. 1962	‡97	98½
2¾	July 1967/76.	78	81
3	Nov. 1963/65.	87	88
5	May 1959	■99½	100½
4	June 1969/72.	90½	92½
Ont. Hydro Comm.:			
2¾	Oct. 1965/68.	82	84
3	Dec. 1963/65.	86	87½
3	Nov. 1967/69.	82	84
3½	May 1974/79.	83	85
5	Apr. 1974/77.	99	100
Prince Edward Island:			
3	Oct. 1963	84½	86½
Quebec:			
4½	Aug. 1958	99	100
4½	Jan. 1963	97	98½
3	Sept. 1962/64.	88½	90
Quebec Hydro Commission:			
3	Feb. 1969/73.	81	83
3	Dec. 1958/60.	92½	94
3½	May 1971/74.	82	84
4½	Oct. 1973/78.	92	94
Saskatchewan:			
5	Aug. 1958	99	100½
4½	Mar. 1960	‡97½	99
3	Mar. 1963	89	90½
3½	Nov. 1960/62.	90½	92½
3½	Oct. 1962/65.	90½	92½
5	Dec. 1959	■99½	100½
Newfoundland:			
4½	July 1964	93½	95½

■Payable Can., N.Y. or £. ‡Payable Can. or N.Y. †Callable on or after Sept. 15, 1956.

Significant Investors' Index Numbers

No. of Securities	Mach. and equip. 10	Pulp and paper 9	Milling 2	Oils 5	Textiles and clothing 8	Food and allied prod. 14	Beverages 10	Bldg. mater. 15	Power and traction 8	Banks 7	Total utilities 13	Total co's 95
*1935 to date:												
High	947.5	1238.1	252.0	285.5	410.5	211.0	650.0	635.0	264.8	304.7	219.8	297.8
Low	69.7	51.6	61.2	78.4	78.4	79.5	79.3	66.7	80.2	60.0	62.5	61.1
1957 Monthly Figures:												
Jan.	763.0	1005.3	147.8	251.6	163.7	181.2	506.3	463.2	227.9	269.9	207.5	273.7
Feb.	756.6	946.4	141.4	244.8	154.7	181.4	488.8	433.4	228.0	271.3	203.6	263.2
Mar.	790.4	966.4	134.8	246.2	153.5	182.8	485.9	438.0	239.0	266.2	209.2	267.5
Apr.	825.6	997.0	138.2	262.9	153.4	197.6	490.9	453.5	243.6	277.5	212.5	278.8
1957 Weekly Figures:												
May 2	878.4	988.6	150.1	272.3	157.7	198.3	512.5	462.0	244.2	274.9	212.7	285.3
May 9	881.2	993.2	153.8	271.6	154.4	199.4	521.4	466.0	247.1	277.2	214.7	285.1
May 15	861.1	983.6	157.3	280.2	158.7	205.9	516.2	468.0	251.1	276.6	216.6	287.1
May 23	855.1	1009.8	161.1	284.4	156.3	209.2	518.8	477.4	255.5	283.8	216.7	290.0
May 30	864.2	1006.7	152.5	285.5	159.0	210.8	511.2	481.1	261.5	282.6	219.8	290.5
June 6	874.0	1000.7	144.4	284.2	155.2	211.0	516.4	487.1	264.8	283.2	218.4	290.7
June 13	883.7	1002.2	138.8	281.9	163.5	210.6	525.9	485.0	264.3	283.8	217.8	290.8

*High and low for year from 1935 to date inclusive are based on weekly figures used by the Dominion Bureau of Statistics.

Toronto Stock Exchange Index

	20 Indus.	20 Golds	15 B.M.	15 W.O.
June 17	487.65	81.93	204.21	189.18
June 14	489.28	82.50	205.38	189.09
June 13	489.27	82.77	203.36	187.99
June 12	489.65	83.25	203.28	190.66
June 11	487.65	83.46	203.00	189.17
Month Ago	481.13	79.21	205.91	182.56
Year Ago	453.06	85.45	236.48	149.96
1957 High	490.42	83.72	232.21	192.99
1957 Low	441.50	74.17	200.65	150.59

Montreal Stock Exchange Index

	10 Util	20 Indus	30 Com	10 Pprs	15 Golds
June 17	152.9	297.6	249.4	1264.59	89.49
June 14	153.1	297.3	249.2	1278.28	90.17
June 13	153.2	294.3	247.3	1267.36	89.54
June 12	153.3	293.9	247.0	1256.38	90.69
June 11	153.1	293.4	246.6	1246.52	91.06
Mon. Ago	150.9	289.8	243.5	1268.86	83.37
Year Ago	136.0	300.0	245.3	1576.57	82.85
1957 High	154.0	300.0	249.4	1534.36	91.06
1957 Low	135.2	273.8	229.2	1242.12	70.51

Dow-Jones Closing Stock Averages

	30 Indus	20 Rails	15 Util	65 Stocks
June 17	513.19	147.42	73.12	177.49
June 14	511.79	147.27	73.47	177.30
June 13	511.58	148.16	73.63	177.57
June 12	509.66	147.58	73.56	176.97
June 11	509.48	145.68	72.76	176.51
Month Ago	505.96	147.96	74.50	176.70
Year Ago	483.91	166.23	66.30	173.58
1957 High	513.19	157.67	74.61	177.57
1957 Low	454.82	139.23	68.33	161.71

Municipal Bonds

June 18, 1957.

	Coup. %	Matur.	Bid $	Ask. $	Yld. $
Calgary	3½	'69	80½	82½	5.50
Edmonton	3½	'69	80	82	5.50
Halifax	3½	'66	84	86	5.50
Hamilton	3	'67	81	83	5.20
Montreal	3	'70	73½	78½	5.21
Moose Jaw	3½	'60	91½	93	5.65
Ottawa	3¾	'68	83	85	5.10
Regina	3	'64	82	84	5.60
Saint John	3½	'65	82¾	84¾	5.65
Toronto	3	'68	80	82	5.10
Vancouver	3¾	'69	82½	84½	5.55
Victoria	3¾	'68	82¾	84¾	5.55
Windsor	2¾	'75	65¾	68¾	5.45
Windsor	3½	'75	74½	77½	5.45
Windsor	2½	'75	62½	65½	5.45
Winnipeg	3	'69	78¾	80¾	6.15

Investment Trusts

	Divd. pd. cents ▲	Bid	Ask
All-Can. Com. Fd.	0532(23.63)	6.59	7.16
All-Can. Div. Fd.	16+2(21)	5.90	6.41
Can. Invest. Fund	8(32)	9.33	10.23
Canafund	(125)	37.73	39.62
Champion Mut. Fund	10(14.5)	...	...
C'wealth Inter.	15(31)	7.87	8.65
Corporate Inv.	28(30)	8.83	9.60
Diversified Inc. Shs.	(13)	4.10	4.45
Dom. Equity Inv.	(33+15)	...	...
Grouped Inc. (new)	(22.14‡)	4.06	4.44
Growth Mines		4.79	5.04
Growth Oil & Gas		10.15	10.66
Investor's Mut.	14(31)	10.83	11.71
Leverage Fund	14(22)	5.75	6.33
Mut. Acc. F	(24.91)	7.27	7.95
Mutual Income	12.68(76.3)	5.60	6.12
Regent Fund Ltd.		4.55	5.00
Sav. & Inv. Mutual		5.19	5.67
Sup'vised Amer.	(17)	6.41	6.47
Sup'vised Executive	(1955)	36.10	...
Sup'vised Executive	(1956)	29.61	...
Sup'vised Executive	(1957)	5.06	5.31
Sup'vised Gr'th Fund	(3■)	2.16	2.18
Sup'vised Inc. Fund	(19)	4.13	4.17
Timed Invest.	8(31)	†5.25	*5.25
Trans-Can. A	(102.6)	31.20	...
Do. B	53.8(106.6)	32.15	...
Do. C	10(21.2)	6.65	7.25

†Less or (*) plus stock exchange commission.

▲Paid or payable in 1957, total paid in 1956 in parentheses.

■Plus stock divd.

‡Of which 12.14 pd. in form of tax-free stk. divd. redeemed for cash immediately.

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THE BIG M

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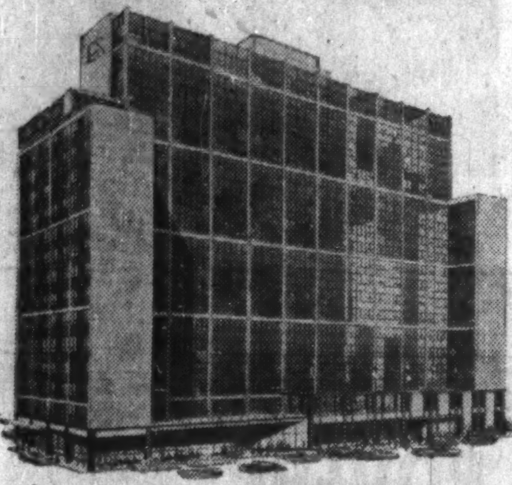
ALL PHASES OF PIPELINE CONSTRUCTION

HEAD OFFICE: ROYAL TRUST BUILDING, EDMONTON, ALBERTA

BRANCHES: VANCOUVER, REGINA AND TORONTO

NOW OPEN



The LORD SIMCOE HOTEL King at University Ave., Toronto

900 "rest-assured" rooms—single, double bedded or twin-bedded. All with bath, radio and television. Rates from $7.50. Suites and Studio Rooms also available.

Enjoy Canada's most picturesque dining rooms

The Pump Room, The Captain's Table, The Beau Nash Lounge, The Sentry Box, The Country Fare

EAGLE STAR INSURANCE COMPANY LTD. of London, England

Ten Years of Expansion 1946-1956

RESOURCES

	1946 $	1956 $
Paid-up Capital	8,969,625	13,387,500
Capital Reserve	4,284,000	7,802,301
General Reserve	3,748,500	7,764,750
Profit and Loss Account	3,506,194	4,025,279
Subsidiaries' Reserves	170,136	472,777
	20,678,455	33,452,607
Life Assurance and Annuity Funds	60,186,463	243,027,807
Sinking Fund and Capital Redemption Fund	3,788,491	5,024,192
Fire Insurance Fund	1,440,155	5,717,373
Accident Insurance Fund	4,527,457	9,936,757
Marine Insurance Fund	2,249,087	5,706,216
	92,870,107	302,864,952
Uncalled Capital	5,506,595	......
	$ 98,376,702	$302,864,952

PREMIUM INCOME

	$	$
Fire	3,931,011	10,918,550
Accident	8,452,008	23,484,936
Marine	1,329,405	4,637,690
	12,712,424	39,041,176
Life Assurance and Annuity Premiums	7,379,752	34,007,384
Consideration for Annuities	1,162,062	1,909,968
Sinking Fund Premiums	187,106	345,622
Consideration for Annuities—certain	587,519	......
	$ 22,028,864	$ 75,304,130

Rate of Exchange: £1—$2.67¾

FIRE • CASUALTY • AUTOMOBILE • MULTI-PERIL

Head Office for Canada

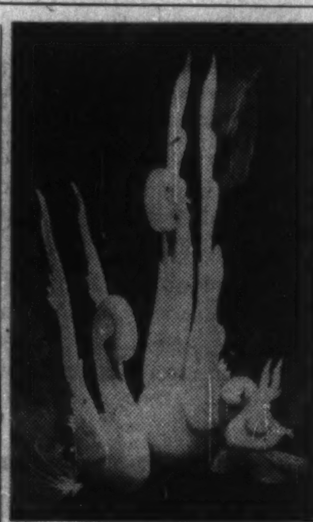
EAGLE STAR BUILDING

217 Bay Street

Toronto

R. Holroyde, Manager for Canada

BRANCHES — VANCOUVER • CALGARY • WINNIPEG • MONTREAL



Art by Mia and Klaus

The SWAN Humidifier Family

has 7 models from which to choose ... they spot cool in Summer ... humidify in Winter.

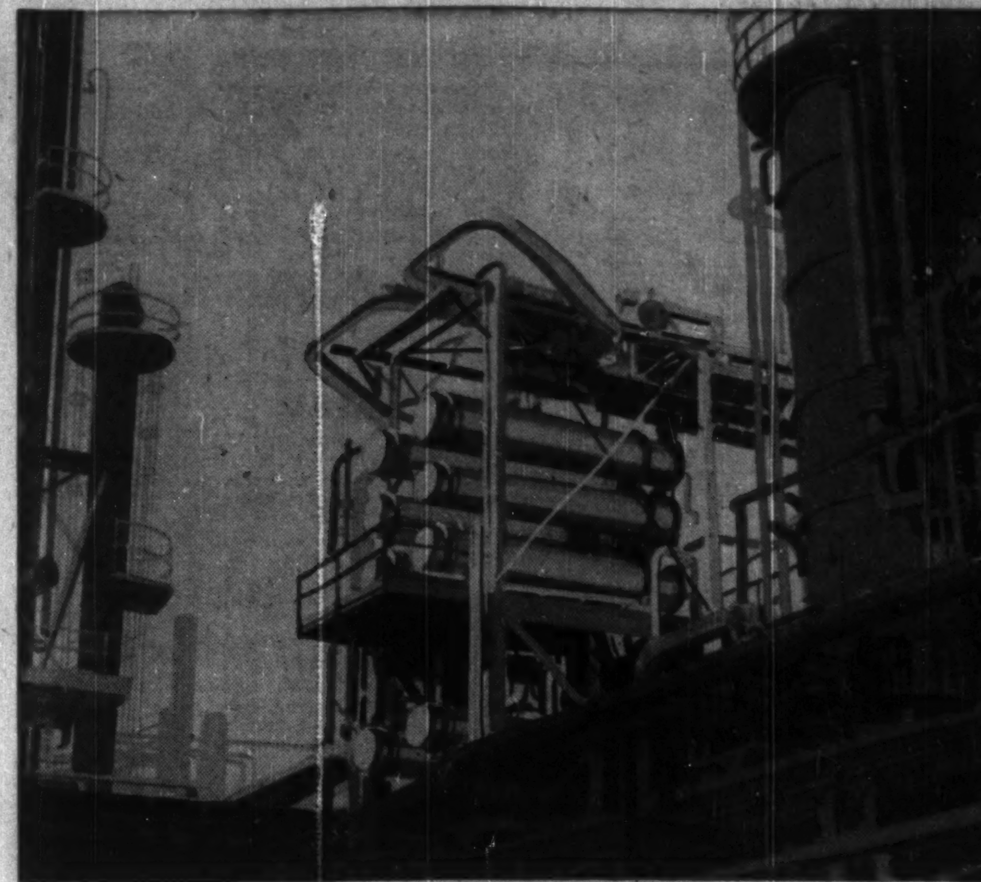
WRITE for our Coloured Brochure and specification sheet. Dealer Territories being allotted—Enquiries Invited.

SWAN Humidifier Co. Ltd.

1545 Crescent St., MONTREAL, QUE.

SWAN HUMIDIFIERS CO. INC.

Ballston Spa, New York.



The Chemical Industry builds for the future

...and Noranda lends a hand with copper-base alloys

Prominent in the expansion of Industrial Canada is the chemical industry. For this progressive industry is constantly planning ahead . . . expanding its productive capacity in order to meet the country's growing needs for new and improved chemical products.

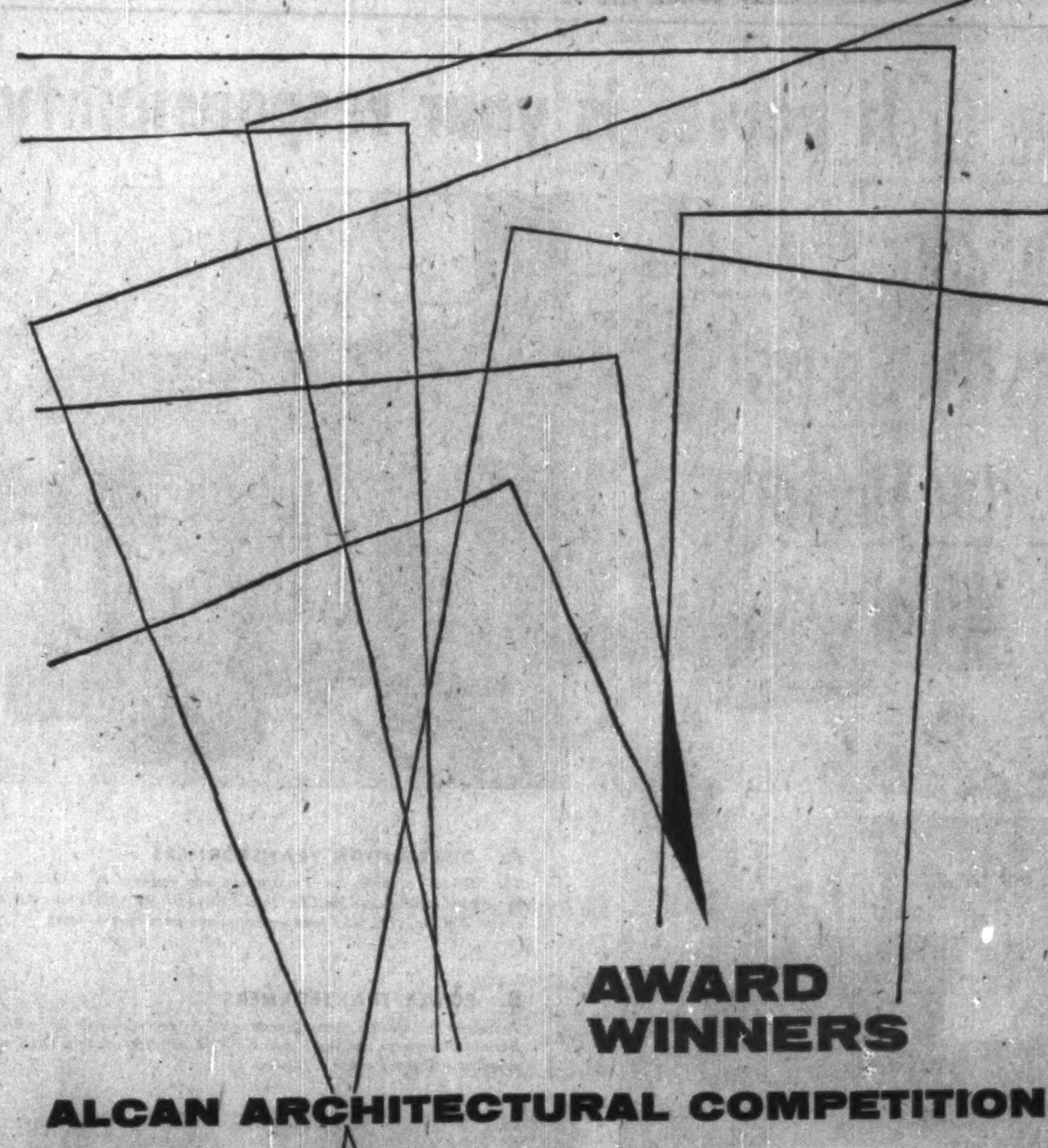
In all this, Noranda lends a hand, supplying high-quality copper-base alloys that add years of productive life and improve the performance of important chemical plant equipment. Condenser and heat-exchanger tubes are specially engineered and produced in order to fight the corrosive attacks of petroleum liquids, acids, chemicals and other solutions.

Similarly, in other fast-growing industries, Noranda copper-base alloy mill products find important application in lowering costs and bring about product improvement. If you need copper, brass or bronze, sheet, strip, tube or wire, get in touch with Noranda. We'll be happy to put our services to work for you.

Montreal Locomotive Works Limited uses Noranda copper-alloy tubing in fabricating heat exchangers for the chemical industry.

Noranda Copper and Brass Limited

SALES OFFICES: MONTREAL • TORONTO • WINDSOR • EDMONTON • VANCOUVER



AWARD WINNERS

ALCAN ARCHITECTURAL COMPETITION

ALUMINUM COMPANY OF CANADA, LTD. is happy to announce the names of the winners of Awards in the recent Architectural Competition for the design of an Alcan suburban sales office building.

While extending our warmest congratulations to the winners, we would also express our sincere appreciation of the active interest shown by members of the Royal Architectural Institute of Canada who submitted designs in this Competition. Folders containing illustrations of the winning designs will be mailed to all members.

FIRST AWARD — $6,000.
Henry Fliess, Toronto, Ont.

SECOND AWARD — $3,000.
Blankstein & Coop, Winnipeg, Man.

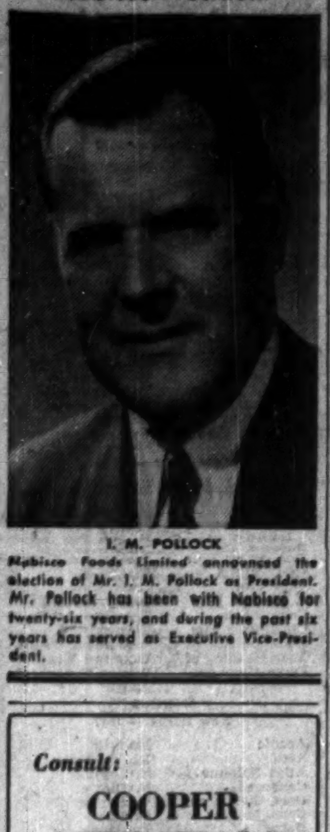
THIRD AWARD — $1,000.
F. Lebensold and J. Schreiber, Montreal, Que.

HONOURABLE MENTIONS $500. each
Walter Agius, Toronto, Ont.
Eugene Janiss, Toronto, Ont.
Jean-Paul Pothier, Montreal, Que.
W.A. Salter and D.E. Flemming, St. Catharines, Ont.

Professional Advisor: Richard E. Bolton, F.R.A.I.C. *Assessors:* Pierre C. Amos, F.R.A.I.C., Montreal; A. F. Duffus, F.R.A.I.C., Halifax; Herbert H. G. Moody, F.R.A.I.C., Winnipeg; William R. Souter, F.R.A.I.C., Hamilton; John H. Wade, F.R.A.I.C., Victoria.

ANNOUNCEMENT

I. M. Pollock Elected Nabisco President



I. M. POLLOCK

Nabisco Foods Limited announced the election of Mr. I. M. Pollock as President. Mr. Pollock has been with Nabisco for twenty-six years, and during the past six years has served as Executive Vice-President.

Consult:

COOPER APPRAISALS LIMITED

Appraisers of BUILDINGS MACHINERY EQUIPMENT

696 Yonge Street
TORONTO, ONTARIO
Telephone WA. 4-8761

Years of Experience from Coast to Coast

"An All Canadian Company"

THE DOMINION OF CANADA
GENERAL INSURANCE COMPANY
HEAD OFFICE • TORONTO

FIRE • BURGLARY • LIABILITY • GUARANTEE BONDS • LIFE
ACCIDENT TICKET • AUTOMOBILE • PLATE GLASS
ACCIDENT AND SICKNESS • INLAND TRANSPORTATION

BRANCH OFFICES
Metropolitan Toronto • Hamilton • Kitchener • London • Ottawa • Windsor • Montreal
Calgary • Vancouver • Winnipeg • Port of Spain, Trinidad • Kingston, Jamaica

The Greatest and Most Costly Hoax In the History of Advertising!

This is the fable of Clannis McDundee, a very big man in the Yo-Yo field. His products were spun "around the world".

Clannis was a close man to a nickel, and knowing all about that "summer slump", he sat back in the heat, sipping toddies and waiting for fall.

Then WOWEE!!!

One catastrophic July day, he was astonished to see his favourite son Hamish, doing a "walk - the - baby" with an O'RIELLY yo-yo! (O'Rielly being an upstart newcomer in the yo-yo business.)

"Somethin' was out of order-r-r!" Friend Clannis was another victim of the greatest and most costly hoax in the history of advertising . . . The supposed summer slump!

While Clannis was easing off, his competitor had been in there pitching for extra summer business!

Now McDundee, learning from experience, has modernized his outlook . . . he's advertising and selling yo-yos all year 'round . . . in fact, summer sales are so good, thanks to his newspaper advertising, he's bringing out a new lightweight summer model . . .

NOW HERE IS THE MORAL OF THIS PROLIFIC BIT:

Don't get caught with your Yo-Yos down this summer . . . reap a rich harvest in London and South-Western Ontario with the constant, dominant circulation of

The London Free Press

Ontario's Only Morning-Evening Combination
Over 100,000 Copies Daily

Dividends Declared

	This payment $	Date payable	Date of record*
Abitibi Pwr. & Pap.	.42½	Jul. 1	Jun. 1
Do 4½% pfd	.28⅛	Jul. 1	Jun. 1
Acadia Atl. Sug.	.12½	Jul. 2	Jun. 10
Do A	.30	Jul. 2	Jun. 10
Adminis. & Tr.	1.00	Jul. 2	Jun. 25
Algoma Steel	a2.00	Jun. 29	Jun. 1
All Cdn. Divd. Fd.	.06	Jul. 15	Jun. 29
Amer-Cyan	†.75	Jun. 28	Jun. 3
Do.	‡stk. div.	Jun. 28	Jun. 3
Anglo-Cdn Pulp & Paper	.50	Jul. 6	Jun. 15
Do pfd.	.70	Jul. 20	Jun. 29
Anglo-Cdn. Tel. pf.	.56¼	Aug. 1	Jul. 10
Do A	.13	Sep. 3	Aug. 9
Anglo-Hur. Ltd.	.25	Jul. 25	Jun. 27
Anglo-Nfld. Dev.	.15	Jul. 5	May 31
Anthes Imp pfd	1.31¼	Jul. 1	Jun. 21
Argus Corp.	.20	Sep. 2	Jul. 31
Do A pfd.	.60	Aug. 1	Jul. 15
Do B	.62½	Aug. 1	Jul. 15
Asbestos Corp.	.25	Jun. 28	Jun. 7
Ashdown Hdwre A	.15	Jul. 1	Jun. 10
Do B	.18	Jul. 1	Jun. 10
Ash Temple A pf.	1.50	Jul. 1	Jun. 19
Do B pf.	.16¼	Jul. 1	Jun. 19
Assoc. Tel & Tel A†	1.00	Jul. 1	Jun. 3
Atl. Wh. A&B	.15+‡.10	Jul. 2	Jun. 15
Atlas Steels	.25	Aug. 1	Jul. 3
Bk. of Nova Scotia	.50	Aug. 1	Jun. 30
Barber-Ellis pf. 7%	1.75	Jul. 15	Jul. 2
Beaver Lumb.	.25	Jul. 2	Jun. 10
Do A	.25	Jul. 2	Jun. 10
Do pfd	.35	Jul. 2	Jun. 10
Beld.-Cort. 7% pf.	.17½	Aug. 1	Jun. 28
Belgium St. pf.	.25	Jul. 1	Jun. 14
Bell Tel.	.50	Jul. 15	Jun. 13
Biltmore Hats	.10	Jul. 15	Jun. 19
Do. A	.25	Jul. 15	Jun. 19
Bird Construct.	.80	Jun. 28	Jun. 15
Do	.60	Sep. 30	Sep. 15
Do.	.60	Dec. 31	Dec. 15
Bowater Corp. 5%pf	.62½	Jul. 1	Jun. 7
Do 5½% pf	.68¾	Jul. 1	Jun. 7
Braz. Tr. pf.	1.50	Jul. 3	Jun. 14
Bridge & Tank pf.	.73½	Sep. 3	Aug. 15
Do Cum.	.30	Sep. 3	Aug. 15
T. G. Bright	.25	Jun. 28	Jun. 14
Do 5% pf	.28⅛	Jun. 28	Jun. 14
Br Am. Ass.	1.00	Jul. 1	Jun. 20
Br. Am. Oil	.25	Jul. 2	May 31
B. C. Power	.35	Jul. 15	Jun. 21
B.C. Elec. 4% pf.	1.00	Jul. 2	Jun. 7
Do 4¾% pf.	1.19	Jul. 2	Jun. 7
Do 5% pf.	.63	Jul. 2	Jun. 7
Do 4½% pf.	.56	Jul. 2	Jun. 7
Do 4¼% pf.	.53	Jul. 2	Jun. 7
B.C. Elec. Riwy. pf.	2½%	Jul. 15	Jun. 30
B.C. Tel.	.50	Jul. 1	Jun. 14
Do 6% 1st pf.	1.50	Jul. 1	Jun. 14
Do 6% 2nd pf.	1.50	Aug. 1	Jul. 17
Do 4¾% pf.	1.19	Jul. 15	Jun. 28
Do 4½% pf.	1.12½	Jul. 1	Jun. 14
Do 4⅜% pf.	1.09	Aug. 1	Jul. 17
Br. Mtge & Trust	4.00	Jul. 3	Jun. 14
Do	†1.00	Oct. 5	Sep. 24
Build. Prod.	.45	Jul. 2	Jun. 14
Burlington St.	.15	Jul. 2	Jun. 7
Burns & Co.	.15	Jul. 29	Jul. 9
Do	.15	Oct. 29	Oct. 9
Butterfly Hose pf.	3.50	Jul. 30	Jun. 30
Calg. Pwr.	.50	Jul. 15	Jun. 14
Do. 5% pf.	1.25	Jul. 2	Jun. 7
Do. 4% pf.	1.00	Jul. 2	Jun. 7
Do. 4¼% pf.	1.12	Jul. 2	Jun. 7
Campbell R.L.	.07½	Jul. 26	Jun. 26
Canada Bread	.10	Jul. 2	Jun. 11
Do 5% pf	.62½	Jul. 2	Jun. 11
Can. Cement pf.	.32½	Jun. 20	May 20
C. Cr. & Cut St. pf.	1.30	Jul. 2	Jun. 3
Can. Flooring B	.25	Jul. 2	Jun. 14
Can. Foils	.10	Aug. 15	Jul. 26
Do. A	.15	Aug. 15	Jul. 26
Can. Iron Fdries.	.37½	Jul. 2	Jun. 10
Do. 4¼% pf.	1.06¼	Jul. 15	Jun. 21
Can. Life Ass.	1.15	Jul. 2	Jun. 14
Can. Perm. Mtge.	.90	Jul. 2	Jun. 14
Can. Safeway pf	1.10	Jul. 2	Jun. 3
Can. Starch	.75	Jun. 30	Jun. 15
Can. Steamship pf.	.31¼	Jul. 2	Jun. 1
Can. Trust	.80	Jul. 3	Jun. 15
Candn. Bk. of Com.	.35	Aug. 1	Jun. 29
Cdn. Brew.	.37½	Jul. 2	May 31
Do 5% pf.	.31¼	Jul. 2	May 31
Cdn. Bronze	.50	Aug. 1	Jul. 10
Do 5% pr	1.25	Aug. 1	Jul. 10
Cdn. Canners A	.18¾	Jul. 2	May 31
Cdn. Celanese	.15	Jun. 30	May 31
Do. $1.75 pf.	.43¾	Jun. 30	May 31
Do. $1.00 pf.	.25	Jun. 30	May 31
Cdn. Drawn St. pf.	.15	Jul. 15	Jun. 28
Do Com	.15	Jul. 15	Jun. 28
Cdn. Gen. Elec.	2.00	Jul. 2	Jun. 14
Cdn. Gen. Invest.	.30	Jul. 15	Jun. 28
Cdn. Husky pfd	.75	Jul. 1	Jun. 14
Cdn. Ice Mach A	.20	Jul. 2	Jun. 14
Cdn. Industries	.10	Jul. 31	Jun. 28
Do. 7½% pf.	.93¾	Jul. 15	Jun. 14
Cdn. Ing.-Rand	.75	Jun. 20	Jun. 6
Cdn. Int. Inv.-Tr.	.15	Sep. 3	Aug. 15
Do. 5% pf.	1.25	Sep. 3	Aug. 15
Cdn. Oil Cos. 4% pf	1.00	Jul. 2	Jun. 3
Do 5% pf.	1.25	Jul. 2	Jun. 3
Do 8% pf.	2.00	Jul. 2	Jun. 3
Do. com.	.20	Aug. 15	Jul. 31
Cdn. Pac. Rlwy.	.75	Aug. 1	Jun. 21
Do 4% pf.	2%	Aug. 1	Jun. 21
Cdn. Westinghouse.	.25	Jul. 2	Jun. 14
Cap. Estates Inc.	‡1.05	Nov. 1	Oct. 30
Celanese Corp	†.25	Jun. 26	Jun. 3
Do. 7% pf.	†1.75	Jul. 1	Jun. 3
Do. 4½% pf.	†1.12½	Jul. 1	Jun. 3
Cent. Can. In. 5% pf	2.50	Jul. 2	Jun. 21
Do. com.	.25	Jul. 2	Jun. 21
Cent. Trust	.17½	Jun. 30	Jun. 15
Chartered Trust	.35	Jul. 2	Jun. 14
Commercial Fin.	1.00	Jul. 2	Jun. 15
Commoil Ltd.	.10	Jul. 4	Jun. 24
Commonwealth Int.	.05	Jul. 15	Jun. 28
Conduits Nat.	.20	Aug. 6	Jul. 26
Confed. Life	.50	Sep. 15	Sep. 1
Do.	.50	Dec. 15	Dec. 1
Cons. Min. & Smelt.	.40+‡.35	Jul. 15	Jun. 14
Cons. Paper	.40	Jul. 15	Jun. 7
Consumers Gas	.20	Jul. 2	Jun. 14
Cont. Can. $3.75 pfd	†.93¾	Jul. 1	Jun. 14
Do 2nd pfd	†1.12½	Jun. 29	Jun. 7
Cont. Life Ins	1.20	Aug. 1	Jul. 20
Corp. Invest A & B	.07½	Jul. 15	Jun. 15
R. L. Crain	.15	Jun. 29	Jun. 7
Crown Life Ins.	.50	Jul. 2	Jun. 20
Crown Tr.	.15	Jul. 2	Jun. 20
Crown Zell.	†.45	Jul. 1	Jun. 10
Crown Zell. (Can.)	.25	Jul. 2	Jun. 10
David & Frere A	.75	Jun. 28	Jun. 14
Deb. & Sec. Cor. pf	2.50	Jul. 2	Jun. 14
Dome Mines	.17½	Jul. 30	Jun. 28
Dom. Corset	.25	Jul. 2	Jun. 14
Dom. Fdries.	.25	Jul. 2	Jun. 6
Do 4½% pfd.	1.12½	Jul. 15	Jun. 20
Dom. Glass	.50	Jul. 15	Jun. 27
Do pf.	.17½	Jul. 15	Jun. 27
Dom. Life	4.00	Jun. 29	Jun. 24
Dom. Oilcloth	.40	Jul. 31	Jun. 28
Dom. Scot. Inv.	.40	Jun. 28	Jun. 14
Dom. Tar & Chem.	.12½	Aug. 1	Jul. 2
Do pfd	.25	Jul. 2	Jun. 1
Donnacona Pap.	.25	Jul. 31	Jun. 29
Dover Ind.	‡‡stk. div.	Jul. 10	unstated
East. Can. Sav.	.30	Jul. 2	Jun. 20
East. Tr.	.25	Jul. 2	Jun. 20
Econ. Inv. Tr.	.25	Jun. 28	Jun. 14
Eddy Match	.37½	Jun. 29	Jun. 14
Erie Flooring A	.30	Jun. 29	Jun. 15
Essex Packers pf.	.62½	Jul. 2	Jun. 10
T. H. Estabr'ks pf.	.28	Jul. 15	Jun. 14
Excelsior L. Ins.	a.60	Jul. 2	Jun. 28
Fanny Farmer	†.37½	Jun. 29	Jun. 13
Fittings Ltd. A	.30	Jul. 1	Jun. 6
Foundation Co.	.25	Jul. 19	Jun. 28
Fraser Cos.	.30	Jul. 29	Jun. 29
Galt. M. Iron 1st pf.	1.50	Jul. 1	Jun. 14
Do 2nd pf	1.56	Jul. 1	Jun. 14
Gat. Pwr.	.35	Jul. 1	May 31
Do. 5% pf.	1.25	Jul. 1	May 31
Do. 5½% pf.	1.38	Jul. 1	May 31
Gen. Bakeries	.07½	Jul. 26	Jul. 5
Gen. Elec.	†.50	Jul. 2	Jun. 21
Gen. Pet. Ord. A	.10	Jul. 5	Jun. 14
G. Prod. A&B	‡‡stk. div.	Jul. 15	Jun. 28
God. Elev.	.50+‡.25	Jul. 2	Jun. 15
Goodyear Tire	1.00	Jun. 29	Jun. 10
Do. 4% pf.	.50	Jul. 31	Jul. 10
Grand & Toy	.35+‡.10	Jun. 28	Jun. 14
Gt. Lakes Pap.	.40	Jun. 28	Jun. 14
Do B	.30	Jun. 28	Jun. 14
Gt. Lakes Pwr 5%p	.31¼	Jun. 29	Jun. 1
Gt.-West Life	1.00	Jul. 1	Jun. 17
B. Greening Wire	.05	Jul. 2	Jun. 13
Grouped Inc. shs.	.06	Jun. 30	Jun. 14
Guar. Co. of N.A.	1.50+‡3.00	Jul. 15	Jun. 28
Guaranty Trust	.17½	Jul. 15	Jun. 30
Gypsum Lime	.30	Sep. 3	Aug. 1
Do.	.30	Dec. 2	Nov. 1
Hahn Brass	.25	Jul. 1	Jun. 12
Do A	.20	Jul. 1	Jun. 12
Ham Cot 5% pf.	1.25	Aug. 15	Aug. 5
Harding Carp.	.15	Jul. 1	Jun. 15
Hendershot Pap.	.10	Jul. 2	Jun. 14
Do pfd.	1.50	Jul. 2	Jun. 14
Hinde & Dauch	.45	Jun. 25	May 31
Do	.45	Sep. 25	Aug. 31
Hollinger Cons.	.06+‡.06	Jun. 28	May 31
Home Oil A	.12½	Jul. 1	May 31
F. W. Horner A	.12½	Jul. 2	May 31
How. Smith Pap.	.25	Jul. 31	Jun. 28
Do pfd.	.50	Jul. 31	Jun. 28
Hubbard Felt A	.75	Jul. 1	Jun. 10
Hudson Bay M.	1.25	Sep. 9	Aug. 9
Hughes-Owens A	.20	Jul. 15	Jun. 15
Do B	.10	Jul. 15	Jun. 15
Do pfd	.40	Jul. 15	Jun. 15
Huron & Erie Mtge	.40	Jul. 2	Jun. 14
Hydro-El. Sec. B pf	.25	Aug. 1	Jun. 28
Imp. Bank	.35	Aug. 1	Jun. 29
Imp. Inv. A&B	.18¾	Jun. 30	Jun. 15
Do pfd	.62½	Jun. 30	Jun. 15
Imp. Life	.50	Jul. 1	Jun. 14
Imp. Oil	.30	Jun. 28	Jun. 4
Imp. Tobacco	.12½	Jun. 28	May 31
Ind. Accept.	.35	Jun. 28	Jun. 3
Do. 4½% pf. ($100 par)	1.12½	Jun. 28	Jun. 3
Do. 4½% pf. ($50 par)	.56¼	Jun. 28	Jun. 3
Do. 5½% pf.	.68¾	Jun. 28	Jun. 3
Indust. Mtge. & Tr.	1.50	Jul. 2	Jun. 15
Ing. Mach.&Tool A	.12½	Jul. 2	Jun. 15
Int. Metals A.	.50	Jul. 2	Jun. 14
Do B	.50	Jul. 2	Jun. 14
Do 4½% pf.	1.12½	Jul. 2	Jun. 14
Int. Milling pf	†1.00	Jul. 15	Jun. 28
Int. Nickel	†.65	Jun. 20	May 21
Int. Paints 6% pf.	.60	Jun. 26	Jun. 12
Int. Util.	.50+‡stk. div.	Aug. 31	Aug. 9
Invest. Found. Com.	.60	Jul. 15	Jun. 15
Do 6% pfd.	.75	Jul. 15	Jun. 15
Do Com.	.60	Oct. 15	Sep. 16
Do 6% pf.	.75	Oct. 15	Sep. 16
Jam. Pu. Ser. Ltd.	.37½	Jul. 2	May 31
Do pfd	1.75	Jul. 2	May 31
Journal Pub.	.20	Jul. 15	Jun. 21
Kelvinator	.15	Jun. 20	Jun. 4
Kerr-Addison M.	.20	Jun. 27	May 31
John Labatt	.30	Jul. 1	Jun. 14
Labrador M.	a.25	Jun. 28	Jun. 7
Aff. Lambert A	.15	Jun. 29	Jun. 14
Do.	.15	Sep. 30	Sep. 16
Do.	.15	Dec. 31	Dec. 16
Do B.	.15	Jun. 29	Jun. 14
Do. B	.15	Sep. 30	Sep. 16
Do. B	.15	Dec. 31	Dec. 16
Do 5% pf.	.25	Jun. 29	Jun. 14
Lambton Loan	2.00	Jul. 3	Jun. 15
Loblaw Inc.	†.50	Sep. 1	Aug. 2
M. Loew's Theat.	1.00	Jun. 28	Jun. 7
Lon. C. Inv. C. pf.	.75	Jul. 2	Jun. 14
London Hose	.30	Jul. 1	Jun. 21
Do A	.20	Jul. 1	Jun. 21
W. M. Lowney	.25	Jul. 15	Jun. 14
Maclaren Pwr.	.50+‡.25	Jun. 28	May 31
MacMillan & Blo. A	.12½	Jun. 28	Jun. 10
Do B	.20	Jun. 28	Jun. 10
Madsen R.L.M.	.05	Jun. 21	May 21
Mailman Corp. prior. pfd.	.25	Jun. 30	Jun. 14
Do 5% pf.	1.25	Jul. 31	Jul. 17
Manufact. Life	1.25	Jul. 2	Jun. 7
Maple Leaf Gard.	.30	Jul. 15	Jul. 2
M. Leaf Mill pf	1.25	Jul. 1	Jun. 14
Maritime Ac. 6% pf.	.15	Jul. 15	Jul. 1
Do pfd.	1.50	Jul. 1	Jun. 14
Mar. Tel. & Tel.	.20	Jul. 15	Jun. 20
Do 7% pf.	.17½	Jul. 15	Jun. 20
Maxwell Ltd.	.12½	Jul. 2	Jun. 14
Do pfd.	1.50	Jul. 1	Jun. 14
L. McBrine pf	.50	Jul. 1	Jun. 14
McColl-Front. pf.	1.00	Jul. 20	Jun. 29
McIntyre-Porc. M.	.50	Sep. 3	Aug. 1
Melch. Dist. pf.	.30	Jun. 29	May 31
Mersey Pap. pf.	.68¾	Jul. 1	Jun. 7
Minas Bas.	.50	Aug. 1	Jul. 15
Do	.50	Nov. 1	Oct. 15
Mining Corp.	.50	Jun. 29	May 31
J. S. Mitchell	.31¼	Jul. 2	Jun. 15
Mod. Containers A.	.25	Jul. 3	Jun. 20
Molson's Brew A.	.35	Jun. 21	May 31
Do B	.35	Jun. 21	May 31
Monarch Mtge.	1.00	Jun. 28	Jun. 18
Mtl. City & Dist. Tr.	.05	Jul. 2	May 31
Mtl. City & Dist. S.	.45	Jul. 3	May 31
Mtl. Locomotive	.25	Jul. 2	Jun. 10
Mtl. Refrig. & Stor.	1.00	Jun. 26	Jun. 17
Mtl. Trust	.30	Jul. 15	Jun. 28
Moore Corp.	†.45	Jul. 2	May 31
Do	†.45	Oct. 1	Aug. 30
Do 7% A&B pf.	†1.75	Jul. 2	May 31
Do	†1.75	Oct. 1	Aug. 30
Morrow Screw pf.	1.80	Jul. 2	Jun. 15
Mt. Royal Dair.	.15	Jul. 2	May 31
Do 5% pf.	.22	Jul. 15	Jun. 30
Nat. Grocers	.15	Jul. 1	Jun. 14
Do pfd	.37½	Jul. 1	Jun. 14
Nat. Hose A	.05	Jul. 2	Jun. 7
Do. A	.05	Oct. 1	Sep 6
Do. A	.05	Jan 2	Dec. 6
Do B	.06	Jul. 2	Jun. 7
Nat Lead com.	†.75	Jun. 26	Jun. 10
Nat. Steel Car	.37½	Jul. 15	Jun. 15
Nat. Trust	.35	Jul. 2	Jun. 17
Neon Pro. of Can.	a.15	Jul. 19	Jul. 5
Niag. W. W.	.50	Jul. 2	Jun. 11
Normetal M.	.10	Jun. 28	May 31
North Star Oil pf.	.62½	Jul. 2	Jun. 3
Nor-Que. Pwr.	.40	Jul. 25	Jun. 28
Nor. Tel.	.02¾	Jul. 15	Jun. 28
Do 5½%pf.	.27½	Jul. 1	Jun. 14
N.S. Lt. & Pwr.	.15	Jul. 2	Jun. 3
Office Spec.	.20	Jul. 2	Jun. 14
Ogilvie Flour cum.	.25	Jul. 2	Jun. 3
Ont Joc Club 5½%pf	.13¾	Jul. 15	Jun. 28
Do, 6% pf.	.45	Jul. 15	Jun. 28
Ont. Loan	.25	Jul. 2	Jun. 14
Ont. Steel Prod.	.25	Aug. 15	Jul. 15
Do 7% pf.	1.75	Aug. 15	Jul. 15
Page-Hersey	.30	Jul. 2	Jun. 14
Parmenter-Twns pf.	.75	Jul. 28	Jul. 14
Patino of Can.	†.20	Jul. 9	Jun. 20
Penmans Ltd.	.45	Aug. 15	Jul. 15
Do 6% pfd	1.50	Aug. 1	Jul. 2
Peoples Cr. Jew. pf	3.00	Jun. 29	Jun. 14
Phillips Elec.	.12½	Jun. 28	Jun. 21
Pickle Cr G.M.	.10	Jun. 29	May 31
Pioneer G.	.12½	Aug. 1	Jul. 15
Placer Dev.	.50	Jun. 20	May 23
Power Corp.	.30	Jun. 29	Jun. 5
Do 4½% 1st pfd	.56	Jul. 15	Jun. 20
Do 6% 2nd pfd	.75	Jul. 15	Jun. 20
Premier Trust	1.00+‡1.00	Jul. 1	Jun. 14
Preston E. D. M.	.04	Jul. 15	Jun. 15
Price Bros pf.	2.00	Jul. 1	May 31
Do com.	.75	Aug. 1	Jul. 5
Prov. Trans.	.25	Jun. 30	Jun. 13
Do 5% pf.	.63	Jul. 1	Jun. 13
Prud. Fin. pf.	1.85	Jul. 1	Jun. 20
Quemont M.	.30	Jun. 28	May 31
R.&M. Bearings A	.28	Jul. 2	Jun. 14
Rap. Grip & Batten	.25	Jul. 2	Jun. 12
Do 6% pf.	1.50	Jul. 2	Jun. 12
Do 6% pf.	1.50	Oct. 1	Sep. 12
Reitman's (Can.)	.15	Aug. 1	Jul. 15
Renold Ch A	.28+‡1.05	Jul. 1	Jun. 14
Do	.27+‡2.05	Oct. 1	Sep. 13
Do	.28	Jan 1	Dec. 13
Jas. Robertson	‡stk. div.	Jun. 14	May 13
P.L. Robertson $1pf	.25+‡‡.24	Jul. 1	Jun. 20
Do com.	.20	Jul. 1	Jun. 20
Robinson Lit. com.	.20	Jun. 29	Jun. 15
A. V. Roe (Can.)	.20	Jul. 2	Jun. 14
Royalite Oil pfd	.328125	Jul. 1	Jun. 14
Russell Ind.	.20	Jun. 29	Jun. 14
St. Lawr. Corp.	.25	Jul. 25	Jun. 28
Do 5% pf	1.25	Jul. 25	Jun. 28
Sangamo	.15	Jun. 27	Jun. 25
Scarfe & Co. A	.20	Aug. 1	Jul. 15
Shaw W P 4% pf	.50	Jul. 2	May 31
Do 4½% pf.	.56¼	Jul. 2	May 31
Sher-Will pfd	1.75	Jul. 2	Jun. 10
Do com.	.45	Aug. 1	Jul. 10
Sicks Brew. com&vt	.30	Jun. 29	May 31
Sigma M.	.20	Jul. 26	Jun. 28
Silverwood Dair. A	.15	Jul. 2	May 31
Do B	.15	Jul. 2	May 31
Do A	.15	Oct. 1	Aug 30
Do B	.15	Oct. 1	Aug 30
T. S. Simms A	.20	Jul. 2	Jun. 14
N. Slater	.25	Aug. 1	Jul. 11
Do. pfd.	.53	Jul. 15	Jun. 28
Somerville pfd.	.70	Jul. 2	Jun. 15
Southam Co.	.30	Jun. 28	Jun. 14
So. Can. Pwr.	.62½	Aug. 15	Jul. 19
Do 6% pf.	1.50	Jul. 15	Jun. 20
Stand. Pav.	.37½+‡.50	Jul. 2	Jun. 14
Stand. Radio A	.18	Jul. 10	Jun. 20
Stedman Bros.	.25	Jul. 2	Jun. 15
Steel Co. of Can.	.40	Aug. 1	Jul. 5
Sterling Trusts	.40	Jul. 2	Jun. 18
Sun Life Ass.	1.00	Jul. 1	Jun. 17
Sup. Propane pfd	.35	Jul. 1	Jun. 15
Supertest Pet.	.04	Jul. 15	Jun. 18
Do ord.	.40	Jul. 15	Jun. 18
Do 5% pf.	1.25	Jul. 15	Jun. 18
Switson Ind.	.07	Jun. 28	Jun. 14
Sylvanite G. M.	.04	Jul. 2	Apr. 18
G. Tamblyn Ltd.	.20	Jul. 2	Jun. 7
Do 4% prf.	.50	Jul. 2	Jun. 7
Tay. Pear. & Car.	.25	Jul. 2	Jun. 14
Timed Inv.	.06	Jun. 29	Jun. 21
Tor. Dom. Bk.	.32½	Aug. 1	Jun. 28
Tor. Gen. Tr.	.37½	Jul. 2	Jun. 11
Tor. Iron Wks.	.25	Jul. 2	Jun. 14
Do A	.25	Jul. 2	Jun. 14
Tor. Mortgage	1.25	Jul. 2	Jun. 14
Tor. Savs. & Loan	.25	Jul. 4	Jun. 21
Traders Fin. A & B	.60	Jul. 2	Jun. 7
Do. 4½% pf.	1.12½	Jul. 2	Jun. 7
Do. 5% pf.	.50	Jul. 2	Jun. 7
Tr. Can. Cor. Fd. 5% pf.	.25	Jul. 1	Jun. 15
Do 4½% pf.	.22½	Jul. 1	Jun. 15
Union Accept.	.05	Jul. 1	Jun. 14
Do. 2nd pf.	.15	Jul. 1	Jun. 14
Union Gas	.40	Aug. 1	Jul. 5
Un. Corp A	.38	Aug 15	Jul. 15
Do B	.10	Aug 31	Jul. 31
Un. Fuel Inv. A pf	.75	Jul. 2	Jun. 14
Do B pf	1.00	Jul. 2	Jun. 14
Do cum	1.00	Jul. 2	Jun. 14
Un. Keno Hill M.	.10	Jul. 15	Jun. 21
Un. Steel Corp.	.25	Jun. 28	Jun. 14
Univ. Cooler A pf.	1.50	Jul. 1	Jun. 14
Do B pf.	.12½	Jul. 1	Jun. 14
Viau Ltd.	.50	Jul. 2	Jun. 20
Wabasso Co.	.12½	Jul. 2	Jun. 10
H. Walker-Good.	.75	Jul. 15	Jun. 21
Waterloo Trust	.60	Jul. 2	Jun. 21
W. Koot. Pwr. pf.	1.75	Jul. 2	Jun. 14
West. Ass.	.70	Jul. 1	Jun. 20
West. Grocers A	.50	Jul. 15	Jun. 14
Do 7% pf.	.35	Jul. 15	Jun. 14
West. Plywood B	.15	Jul. 15	Jun. 21
Geo. Weston A	.12½	Jul. 1	Jun. 10
Do B	.12½	Jul. 1	Jun. 10
Willson Stat. 5% pf	1.25	Jul. 15	Jun. 20
J. C. Wilson	.25	Jun. 28	Jun. 14
Wood Alex 6% pf	1.50	Jul. 1	Jun. 17
Zellers Ltd.	.30	Aug. 1	Jul. 2
Do. 4½% pf.	.56¼	Aug. 1	Jul. 2

‡‡—Participating
† U. S. funds. ‡Extra.
*The ex-dividend date is usually at least two full business days prior to the record date.
a—Initial.
a—Interim divd
a—1 3% pf. sh. ($1 par) for ea. 3 shs held to be redeem. immed.
‡‡—3(10c par) pf. shs. for ea. sh. held red. immed. paid in lieu of 2 quart. divds.
†—One sh. com. stk. for ea. sh. held.
‡—One com. sh. for ea. sh. held.
‡—First foll. 5-for-1 stk. split.
‡‡—1 sh. 3% noncum. redeem. 2nd pf. ($1 par) for ea. cl. A or B sh. held.

J. L. Holman Elected Telephone President

John L. Holman, general manager of New Brunswick Telephone Co., has been elected president of the Telephone Association of Canada. He succeeds S. R. Muirhead, deputy minister and general manager of Saskatchewan Government Telephones.

Other officers elected at the recent annual meeting in Victoria were: vice-president, W. S. Pipes of Vancouver, vice-president and general manager, B.C. Telephone Co.; liaison officer, J. A. Dochstader of Ottawa, assistant to the president, Bell Telephone Co.; secretary-treasurer, W. D. Stone of Montreal.

Next year's meeting will be held at Jasper Park Lodge, Alta.

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THE WEEK'S QUOTATIONS

Quotations here listed are the official, exchange prices for listed stocks including curb market quotations. For unlisted stocks, quotations by unlisted dealers are given. The Financial Post cannot accept any responsibility for these quotations.

Montreal and Toronto Winnipeg, Calgary and Vancouver

Bid and Ask quotes of Toronto and Montreal exchanges up to press time are published on page 44

Industrial Stocks

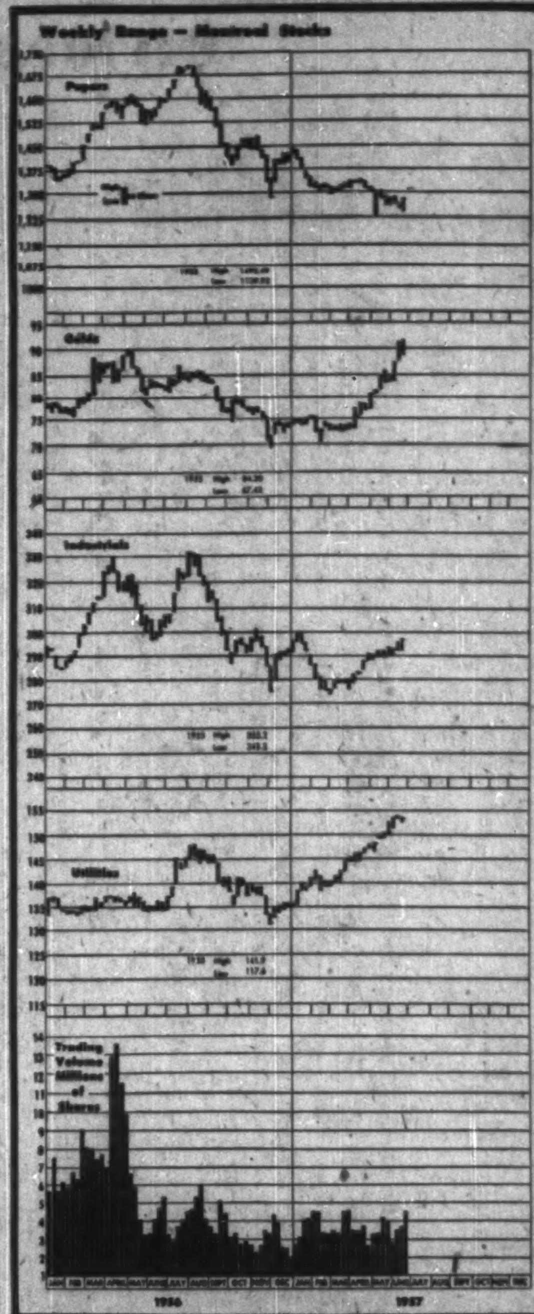
WEEK ENDING JUNE 14, 1957

Range 1957 High	Low	Div. $	Y'ld %	Company	Sales	Last June 7	Week end. June 14 High	Low	Close or Latest
1.50	.85	..	..	Abitca Lumber	37600	1.15	1.15	1.05	1.10
35½	30	1.70	5.2	Abitibi	10605	30¾	32¾	30½	32½
24½	21⅝	1.12½	4.8	Do. 4½% pref.	645	23	23	22¾	22¾
9⅝	7	.50	5.9	Acadia Atlan.	644	8⅝	9⅛	8½	8⅝
95	85	5.00	5.6	Do. 5% pref.	45	95	93	90	90
21	17½	1.20	6.5	Do. (A)	340	17¾	18½	18	18½
..	..	a1.00	..	Admiral	nil	..	B11¼	A11½	..
8	6¾	.40	5.2	Agnew Surp.	300	7⅛	7¾	7⅝	7¾
9	8⅛	.85	7.0	Do. pref.	nil	..	B7⅞	A8⅝	†7⅞
1.85	1.20	..	..	Albt. Dist.	4100	1.50	1.60	1.50	1.50
1.70	1.25	..	..	Do. V.T.	2450	1.40	1.45	1.45	1.45
21	19¾	..	..	Albt. Gas Trunk	38454	..	21	19¾	20⅝
157	108¼	2.00	1.3	Algoma Steel	4055	154	156	152	152
23⅝	20⅝	1.00	5.0	Alum. of Can. p	1146	21⅛	21¼	20	20
48½	44½	2.25	4.9	Do. 2nd pref.	1940	45	45½	44½	45½
46	41⅝	..	..	Aluminium new	24947	44	46	43½	46
3.25	3.00	..	..	Analogue	600	3.00	3.25	3.00	3.00
6	4¾	a.20	..	Andian Nat.	nil	..	A5¼	B5⅝	5
..	..	1.50	..	Anglo. Can. Oils (Brandon)	nil	..	A19	..	†19¾
39½	31½	2.00	6.2	Ang. Cdn Pulp.	465	33	33	32½	32½
51½	50	2.80	5.5	Do. pref.	525	51	51	50	50½
46	40	2.25	5.1	Ang. Can. Tel. p	250	44	44½	44	44½
10¾	8	.60	7.1	Ang. Nfld.	4712	8½	8⅝	8¼	8½
..	..	1.25	..	Angl-Scand. Inv.	nil	..	..	..	11
25½	22½	..	..	Anthes Imp.	50	24	24	23¾	23¾
40	.25	..	..	Arcan Corp.	100	30	†.18	†.18	†.18
18½	15½	.80	4.7	Argus	7439	17⅛	17¾	16½	17
50⅝	44	2.40	5.2	Do. 2nd pf. A	300	46	46½	46	46
43	41½	2.50	6.0	Do. pref.	145	42	42	41½	41½
..	..	a1.00	..	Aro Equip.	nil	..	..	..	..
35	29¾	1.60+1.60	..	Asbestos	3224	32½	32½	31	32
4.50	3.00	..	..	Ash Temple	nil	..	B3.25	A3.40	3.50
94	90	6.00	6.7	Do. A pref.	nil	..	B..	A90	90
9⅛	8⅛	.65	7.5	Do. B pref.	nil	..	B8⅝	A9	8⅝
12	12	.60	5.0	Ashdown Hd. A.	nil	..	B..	A12½	12
12¾	10	.72	5.8	Do. (B)	15	12	12½	12½	12½
11¼	9⅛	..	..	Assoc. Artists	2200	10¼	10⅛	10	10
15¼	6½	..	..	Do. Warr.	160	13½	13½	12½	13
118½	90	..	..	Do. Deb.	6080	110	110½	107	107
..	..	a4.00+‡a3.00	..	Assoc. T&TA pf.	nil	..	..	..	101
6	5	..	..	Atlan. Accept.	nil	..	B5⅝	A5¾	6
14	14	1.10	7.9	Do. pref.	nil	..	B14	A14	14
29¾	23	1.50+.25	..	Atlas Steels	2724	27¾	27⅞	27¼	27½
15½	13	1.40+1.25	..	Auto Electric	100	15	14½	14½	14½
11¼	10	.50	4.5	Do. (A)	nil	..	..	..	11
4.75	3.00	•	..	Auto Fabric A	50	3.00	3.00	†2.75	†2.75
1.10	.50	•	..	Do. (B)	150	.50	.60	.60	.60
				B					
42½	38	1.20+1.30	..	Bk. Can. Nat.	625	39¾	39¾	39½	39½
54⅝	46	1.40+1.20	..	Bk. Montreal	11303	46⅛	47⅛	46¼	46⅝
3.65	3.10	..	..	Do. Rts.	122910	3.25	3.40	3.20	3.25
59½	55½	2.00+1.20	..	Bk. N. Scotia	2137	59	59½	58	59½
..	..	3.20+1.80	..	Barber-Ellis	nil	..	B44⅛	..	..
..	..	3.50	..	Do. 7% pref.	nil	..	..	..	..
5	4¾	..	..	Barcelona	nil	..	B4.90	A5.75	5.00
9	8½	1.00	11.1	Bates & Innes A	nil	..	B8½	A9	9
58⅛	53½	3.00+1.50	..	Bathurst Pr. A	180	54¼	54	54	54
40	28	1.25	..	Do. (B)	187	30	30	29	30
7½	5½	.40+1.10	..	Beatty Bros.	700	6⅝	6½	6¼	6¼
30¼	29¼	1.00	3.3	Beaubran	nil	..	B29⅞	A31	30¼
19¾	18	1.00	5.6	Beaver Lumber	100	19¾	18	17¾	18
20	16¼	1.00	5.9	Do. (A)	100	16¼	17	17	17
25	25	1.40	5.0	Do. pref.	nil	..	..	A26	25
10⅛	9⅝	1.15	..	Belding Cort.	100	10¼	10¼	10¼	10¼
13	11½	.70	6.4	Do. pref.	nil	..	B11½	A13½	†11
9	6	..	..	Belgium Stores	nil	..	B5	A8	†5
14	13¾	1.00	7.5	Do. pref.	nil	..	..	..	13¼
46⅛	41	2.00	4.9	Bell Telephone	24187	42	42	41	41
1.14	1.00	..	..	Do. Rts.	176359	1.02	1.05	1.00	1.00
6⅝	5⅛	.40	7.8	Biltmore Hats	nil	..	..	A6½	5⅛
13	10½	1.00	8.2	Do. (A)	25	10½	12½	12	12½
50	.50	2.40+1.40	..	Bird Constr.	nil	..	B50	A..	50
12	12	..	..	Blue Ribbon	nil	..	B12	A15	†13
38⅛	36½	2.50	7.1	Do. pref.	nil	..	B35	A36	†35
6.00	4.85	8%	..	Bowater Paper	1319	5.25	5.50	5.12½	5.25
45	40½	2.50	5.9	Bowater NA 5%p	240	40¾	42¾	41½	42¾
48½	44½	2.75	6.1	Do. 5½% pref.	740	46	45½	44½	45½
16	12½	1.00	..	Bowes Ltd.	nil	..	B14	A17¾	13
10¾	9½	.60	6.0	Boyles A	450	10¼	10	10	10
9	7½	..	..	Do. (B)	180	8¼	7½	7½	7½
18	15¼	1.00	6.1	Brant. Cord. A	nil	..	B16	A16½	16½
12¼	9	.50	4.8	Do. (B)	600	10½	10½	10½	10½
10	7⅛	1.50+1*	..	Brazilian Tr.	13359	9⅝	9⅝	9¼	9⅝
94	88½	6.00	6.4	Do. pref.	nil	..	B95	A..	94
49½	43	2.90	6.2	Bridge & Tank p	nil	..	B46	A47	46½
4.50	4.10	..	..	Do. Warr.	635	6.00	7.50	6.00	7.50
19	15⅝	1.25	..	Bright, T. G.	nil	..	19	20	19
20	19	1.15	5.8	Do. 5% pref.	nil	..	20	21	20
33½	29⅝	1.65+1.50	..	Br. Am. Bk. N's	nil	32½	32	32	32
57⅝	43¼	1.00	1.7	Brit. Amer. Oil.	17005	57⅝	57½	56½	57
84	78¼	4.00	5.1	B.C. Elec. 4% pf.	55	80	†79	†77	†78
95¾	89¾	4.75	5.3	Do. 4¾% pref.	540	90½	90½	90	90
50	46¼	2.50	5.3	Do. 5% pref.	785	47⅛	48	46¼	47¼
47	40	2.25	5.6	Do. 4½% pref.	480	40	42	40	41½
43	39½	2.12½	5.3	Do. 4¼% pref.	425	40	40½	39½	40
13⅝	10	.50	4.1	B.C. Forest	8982	11½	12½	11⅝	12⅛
17	13½	.75	4.7	B.C. Packers A.	125	16	16	16	16
17½	13	*1.25	..	Do. (B)	225	16	16¼	16	16¼
53	41	1.40	2.7	B.C. Power	4985	51⅝	51½	50½	51
47¼	43	2.00	4.5	B.C. Tele.	1335	44¾	44¾	44	44
1.10	.90	..	..	B.C. Turf	500	.93	.90	.90	.90
17¾	14¾	a1.00	..	Brown Co.	3432	15½	16	15¾	15¾
8	6½	1.20‡‡	..	Bruck S. Mills A	830	7	6½	6½	6½
3	2	•	..	Do. (B)	nil	..	B2.00	A2.15	2.00
36	29½	1.80	5.7	Building Prod.	404	31½	35½	31½	35½
7½	6	.50	7.1	Bullochs A	nil	..	..	A6¼	6¾
5½	4	1.17½	..	Do. (B)	nil	..	B4⅞	A5¼	5½
15⅛	13½	1.55+.25	..	Burlington Steel	nil	..	B14	A14½	14½
12	10½	.60+1.10	..	Burns & Co.	910	11	11	10¾	10⅝
7⅝	6⅝	.45	6.4	Burrard D.D. A	375	7¼	7¼	7	7
2.25	1.50	•	..	Butterfly Hos.	nil	..	B1.75	B2.50	2.00
				C					
..	..	.80	5.7	Caldwell Linen	nil	..	..	..	14
22	21½	1.50	7.1	Do. 1st pref.	nil	..	B21	B23½	†21
..	..	.80	6.2	Do. 2nd pref.	nil	..	..	..	13
80	63	2.00	2.5	Calgary Pwr.	2615	78	80	78	79½
103	97	5.00	5.0	Do. 5% pref.	10	102	101	100¾	101
				Canada					
3.00	2.50	.10	4.0	Canada Bread	nil	..	B2.80	A3.00	2.50
55	51	2.50	4.6	Do. pref. B	80	51	54	53	54
30¼	24½	1.00	3.5	Canada Cement	4374	28¾	29	27½	28¾
29	26	1.30	4.9	Do. pref.	776	26¾	27	26¾	26¾
8⅛	6	1.10	..	Can. C. Stone	515	8	8	8	8
24	20¼	1.20	5.2	C. & D. Sugar	1566	23	23½	23	23
..	..	1.75	..	Can. Floor B	nil	..	B14	..	15
17	12	.40+1.20	..	Can. Foils	nil	..	B15¼	A16½	16½
18¼	12½	.30+a.43	..	Do. (A)	25	16½	16	16	16
13	12	..	..	Can. Forg.	nil	..	B11	..	12
..	..	1.50	4.5	Do. (A)	nil	..	..	A27	28
43	35	1.50	3.7	Can. Iron	1255	40¼	40½	39¾	40½
111	100½	4.25	3.9	Do. 4¼% pref.	115	108¾	109	108¾	109
175	149	13.45	..	Can. Life	35	160	156	156	156
10	8	..	..	Can. Machine	nil	..	B8⅝	A10	8½
55	47½	2.00+1*	..	Can. Maltings	150	50½	50½	49½	49½
24¼	22½	1.17	5.1	Do. 4½% pref.	200	22½	23	23	23
39½	34¾	1.50+1.12½	..	Can. Packers A	210	37	36⅞	36	36
37½	34	1.50+1.12½	..	Do. (B)	1460	35	35¼	34⅝	35¼
90	80	12.55+.10	..	Can. Perman.	80	82¾	83½	82½	83½
94	90¾	4.40	4.9	Can. Safeway p	155	90¾	91	90¾	90¾
45½	29	1.00	2.2	C. Steamships	926	45	45½	42	45
12½	11	.62½	5.4	Do. pref.	125	11½	11½	11½	11½
20½	17¾	1.50+*.15	..	Can. Vinegars	50	18⅛	18½	18	18⅛
..	..	..	..	Can. Wt Cord A	nil	..	..	A..	8⅛
..	..	4.00	1.9	Can. W. Cable A	nil	..	..	..	210
21	16	.80	4.6	Do. (B)	465	16⅞	17⅝	16½	17⅝
				Canadian					
125¼	125	1.00	0.8	Canadian Arena	nil	..	B125	..	125
5	4	•	..	Cdn. Bakeries	300	4.75	4.95	4.95	4.95
56	45	1.40+1.20	..	Cdn. Bk. Com.	4133	49¾	49¾	49	49½
28⅝	23½	1.50	5.8	Cdn. Breweries	5012	25¼	26	25	25⅞
28	23¾	1.25	4.6	Do. pref.	1090	27½	27¼	27	27
19	16½	..	..	Cdn. Br Alum A	6355	18½	18	17¼	17¼
30⅝	25½	1.50+1.25	..	Cdn. Bronze	1273	30½	30½	30	30
103	101	5.00	5.0	Do. pref.	nil	..	..	..	101
14½	13¼	.75	5.4	Cdn. Canners A	1820	14	14	13¾	14
18	12½	.60+1.15	..	Cdn. Celanese	8990	14	16	14	16
30	27½	1.75	6.1	Do. pref. $1.75	464	28¾	29	28	28½
16½	15¼	1.00	6.5	Do. $1 pref.	nil	..	B15	A15½	15¼
9	6½	..	..	Cdn. Chem.	5710	6⅞	7	6⅞	7
7¼	5⅜	•	..	Cdn. Collieries	6000	6	6¼	5⅞	5¾
.85	.70	4.02½	..	Do. pref.	15500	.70	.82	†.70	.72
3.60	3.50	..	..	Cdn. Convert A	nil	..	B3.50	A4.00	3.50
4	4	..	..	Do. (B)	nil	..	B4	..	4
14	10	•	..	Cdn. Cottons	520	11	13⅛	11¼	13
8	6	..	..	Do. pref	355	6	8	7¼	8
8	7½	..	..	Cdn. Drawn St'l	nil	..	B7½	A8	8
10¾	10	.80+‡a.12	..	Do. pref.	60	10	10½	10½	10½
22¼	18	1.00	..	Cdn. Dredge	1872	21¼	21⅞	20¾	21¾
21	20	1.20	5.8	Cdn. Fairb.	nil	..	B19½	A20½	20⅝
124	124	6.00	4.8	Do. pref.	nil	..	B122	..	124
3.50	3.25	•	..	Cdn. Food Prod.	180	3.50	3.25	3.25	3.25
8¼	8	..	..	Do. (A)	20	8	8	8	8
50	43	•	..	Do. pref.	16	43¾	44	†37	44
755	755	18.00+4.00	..	Cdn. Gen. Elec.	nil	..	B500	A990	755
31½	28	1.57½+.15	..	Cdn. G. Inv.	1536	30½	30¾	30	30
23⅞	18	.50+1*	..	Cdn. G. Sec. A	nil	..	B18¾	A20¾	22
23	21	1.25+1*	..	Do. (B)	nil	..	B20	A25	23
15	8½	*a.12½	..	Cd. Hydro-Card	10421	14	14⅝	13½	13⅝
6⅞	5	*.10	..	Cdn. Ice Mach.	nil	..	B6	A7⅛	6⅞
13	11	.80	7.3	Do. (A)	nil	..	B11	A12	12
20	15½	1.40	..	Cdn. Indust.	2417	19½	19⅞	19⅝	19½
80	75	3.75	5.0	Do. pref. ('54)	nil	..	B79	A79	75
57	44	11.00+.50	..	C. Ingersoll R.	25	53	53	53	53
19¼	18	1.45	..	Cdn. Int. I. Tr.	nil	..	B20	A25	19
89	86¼	5.00	5.8	Do. pref.	nil	..	..	..	86¼
19⅛	15	..	..	Cdn. Int. Pwr.	5648	17¼	18	17¾	17¾
28	22	1.50	..	Cdn. Locomo.	35	24⅛	24¼	23	24¼
4.10	3.10	1.06	..	Cdn. Marconi	860	3.25	3.65	3.30	3.55
36⅞	26¾	.80	2.2	Cdn. Oil	4967	35⅝	36⅜	35¼	35⅝
101½	97¼	5.00	5.0	Do. 5% pref.	145	100	100½	100	100
160	140	8.00	5.7	Do. 8% pref.	10	140	140	140	140
82	81	4.00	4.9	Do. 4% pref.	25	82	81	81	81
19¼	11	..	..	Do. Warr. 1953	285	18¾	18¾	18	18
11	4	..	..	Do. Warr. 1955	4235	10¼	10½	10	10¼
34¾	28¼	1.50+1.25	..	Cdn. Pacific	17979	34⅝	34½	33¾	34⅝
36⅞	23⅝	..	..	C. Petrofina pf.	3866	24¾	25⅛	24¾	25
7⅞	5	..	..	Cdn. P & P A	nil	..	B7	A7⅞	7½
2.25	.84½	..	..	Cdn. Propane	6600	1.45	2.25	1.35	2.25
40	23½	..	..	Cdn. Salt	nil	..	B24	A25	24
4	2	•	..	Cdn. Silk A	50	3	2	2	2
110	91	.60+1.10	..	Cdn. Tire	100	93	94	91	91
..	..	1.00	4.8	Do. pref.	nil	..	..	..	21
99	90	5.00	5.3	Cdn. Utilities p	70	93¼	95	94¼	94¼
93	80	4.25	5.2	Do. 4¼% pref.	nil	..	..	A90	81
32½	27	1.50	4.8	Cdn. Vickers	1548	32	32	31	31
13¾	11	*.40	..	C. Wallpaper A	75	11¾	11¾	11	11
13	10½	*.40	..	Do. (B)	nil	..	..	A12½	10½
17	14⅝	.80	5.2	Cdn. W. Gas p.	125	15	15⅛	†14⅛	15⅜
50	35	1.00	2.1	C. Westinghouse	432	50	49	48	48
5.12½	4.00	a.15+.10	..	Capital Estates	2250	4.80	5.00	4.85	5.00
1.55	1.30	..	..	Carling Br. Alta.	200	1.50	1.55	1.55	1.55
1.35	1.10	..	..	Do. V.T.	nil	..	B1.30	..	1.35
12½	11½	.60+1.20	..	Carter, J. B. A	nil	..	B11½	A12	12½
28	25	11.00	..	Do. (B)	100	25	25	25	25
39	19	.50+1.35	..	Catelli Food A.	nil	..	..	A30	30
38⅛	34	1.00+1.35	..	Do. (B)	nil	..	B35	..	35
..	..	a.25	..	Celanese Corp.	nil	..	..	..	..
..	..	a4.50	..	Do. 4½% pf.	nil	..	..	..	..
..	..	a7.00	..	Do. 7% 2nd pf	nil	..	..	..	..
..	..	1.70	..	Cent. Can. Inv.	nil	..	B32	..	30
100¼	100¼	5.00	5.0	Do. pref.	nil	..	B100	..	100¼
56	52	1.40	2.7	Chart. Trust	nil	..	B53	A54	†51
4.00	3.35	..	..	Chatco Steel pf.	nil	..	..	A3.70	3.35
20	13¼	1.00	6.3	Chateau-Gai	100	15⅛	16	16	16

Range 1957 High	Low	Div. $	Y'ld %	Company	Sales	Last June 7	Week end. June 14 High	Low	Close or Latest
73	62	11.50	..	Chrysler Corp.	117	71½	74	69	74
.50	.50	18d	..	Cinzano A	nil	..	B.35	..	†.55
.85	.85	5½%	..	Do. 5% pref.	nil	..	B.80	..	.85
2	2	..	..	Circle Bar Knit.	nil	..	B2½	A3	2
4½	4	..	..	Do. A	nil	..	B4½	A5	4
10⅝	6	..	..	Claude Neon A	nil	..	B8	A10	7½
10⅛	5½	..	..	Do. B	nil	..	B8	A8	7
89	65	..	..	Do. pfd.	50	83	89	89	89
23	15	..	..	Cochrane-D.	15	20½	22	22	22
17	14	.80	3.6	Do. A	40	14	14	14	14
8⅞	7¼	..	..	Cockshutt Farm	3450	8½	8⅛	8¼	8¼
17¾	15¾	1.00	6.0	B. J. Coghlin	1370	17¼	17	16⅝	16⅝
..	..	1.75+.25	..	Coll. Terminal	nil	..	B13½	..	11⅛
..	..	1.75+.25	..	Do. pref.	nil	..	..	..	13
13¼	10	1.20	..	Comb. Enter.	3075	12⅝	13	12⅝	13
11½	9⅝	.80	7.6	Conduits Nat.	225	10	10⅝	10	10⅝
140	115	2.00	1.7	Conf. Life	nil	..	B115	A130	120
7	6⅛	1.25	..	Cons. Bakeries	638	6½	6⅝	6¼	6⅝
1.65	1.25	..	..	Cons. Div. Sec. A	nil	..	B1.25	A1.75	1.30
38	33	11.00	..	Do. pref.	54	†32	34	33	33
7	7	1.25	..	Cons. Fire Ins.	nil	..	B5½	A7	7
..	..	..	..	Cons. Food	nil	..	..	..	16½
39½	33	11.20+.40	..	Cons. Paper	5558	34	35⅜	33	35
4.15	2.20	..	..	Cons. Press A	1000	3.50	4.15	4.15	4.15
1.75	1.00	..	..	Do. B	800	1.75	1.75	1.75	1.75
28¾	23	11.20+.80	..	Cons. Smelt.	16697	24	24⅝	23	24
3½	2½	•	..	Cons. Textiles	nil	..	B3	A3⅛	3
18⅝	18⅛	1.00	5.4	Do. pref.	nil	..	..	A17	18⅝
40⅝	27¾	.80	2.0	Consumers Gas	5175	38⅛	40⅝	37¼	40⅛
31	25	1.50	5.7	Consumers Glass	190	27½	27⅛	26	26
6¼	4½	a.07½	..	Copp Clark	50	5	4¾	4½	4¾
..	..	1a.90	..	Cont. Can.	nil	..	..	..	..
17	14½	1.10	6.6	Corbys Vot.	2120	15⅝	17	15½	16¼
16	14¾	1.10	7.1	Do. N. Vot.	910	15	15½	15	15½
14	12	.70+1.10	..	Cosmos Imp.	400	12¼	12½	12½	12½
3.50	2.70	1.10	..	Craig Bit	nil	..	B2.60	A2.70	2.75
31½	23	.60	1.9	Crain, R. L.	25	31½	†32	†32	†32
6⅛	5½	1.10+1.05	..	Credit Accept.	nil	..	B5½	..	5½
4.25	2.60	..	..	Crestbrook Tim.	1650	2.65	2.85	2.60	2.65
42½	35	2.75	7.9	Do. pref.	nil	..	B29½	A32	35
1.81	1.35	..	..	Do. warr.	150	1.50	1.65	1.40	1.40
50	45	2.00	4.0	Crown Cork	nil	..	B50	..	50
23½	20	.60	2.9	Crown Trust	100	21	21	21	21
54½	47	a1.80	..	Crown Zeller	686	49½	52	49¼	52
22¾	17¾	1.75	..	Crn. Zell. (Can.)	1725	17¾	21	†17½	21
260	220	4.00	1.6	Crow's N. Coal	11	250	245	245	245
				D					
50	48	3.00	6.3	David & Fre. A	nil	..	..	A50	48
11	8	•	..	Davis Leather A	260	8	8	8	8
3.50	2.00	..	..	Do. B	nil	..	..	A2.50	2.00
190	190	11.00	..	De Havilland A	nil	..	B165	A250	190
..	..	..	..	Disher Steel N.	nil	..	..	..	..
33	28¼	1.20+1.50	..	Distill.-Seagram	11320	31¼	31⅝	30⅝	31
435	425	110.00+7.0	..	Dom. Ang. Inv.	nil	..	B440	..	435
95	95	5.00	5.3	Do. pref.	nil	..	B94	..	95
27½	19¼	1.30+.30	..	Dom. Bridge	4294	26⅞	27	25⅞	26⅞
10	6½	..	..	Dom. Coal pref.	50	7⅝	7⅝	7⅝	7⅝
14½	13¼	1.75	..	Dom. Corset	55	14½	14	13¾	14
8	7	..	..	Dom Dairies	330	7⅝	7¾	7	7
18	17	•	..	Do. pref.	110	17	17½	17	17½
13	9	1.25	..	Dom. Electro	nil	..	B8½	A8¾	9
25	21	1.50+.20	..	Dom. Engineer	360	22	22	21½	21½
10¾	10	1.30	..	Dom. Fabrics	25	10¼	10	10	10
18	18	1.50	8.3	Do. 2nd pref.	nil	..	B18⅞	..	18
33½	26⅝	1.75	..	Dom. Fdry.	4730	33	33½	32⅝	33
99	96	4.50	4.6	Do. 4½% pf.	300	96½	97½	97	97
69	51	11.50+1.60	..	Dom. Glass	150	66	67	66	66
15	14	.70	4.7	Do. pref.	nil	..	B14¼	A15	15
..	..	14.00	..	Dom. Insur.	nil	..	B166	..	225
16	11¾	1.50	..	Dom. Magnes.	360	15¼	15⅛	14⅝	14⅝
31	28	1.60+1.40	..	Dom. Oilcloth	260	28½	29	28⅝	29
27½	24	1.40+1.20	..	Dom. Scot. Inv.	nil	..	B26	A27	27
47	43	2.50	5.4	Do. pref	20	46	46	46	46
..	..	*2.00*	..	Dom. Square	nil	..	..	..	110
26⅝	19½	1.00	4.0	Dom. St. & C.	25826	24⅝	26⅜	24	25¼
57½	39½	1.20	2.2	Dom. Stores	1807	53½	55	53	54½
12⅝	10⅛	.50	4.4	Dom. Tar & Ch.	23911	11⅜	11½	10⅞	11¼
22	18½	1.00	5.4	Do. pref.	950	19	19	†18½	18½
9⅛	7⅞	1.30	..	Dom. Textile	13518	8	9⅛	8	9⅛
135	116	7.00	6.0	Do. pref.	20	116	116	116	116
1.25	.50	..	..	Dom. Woollens	200	1.00	1.00	1.00	1.00
15	14	.80+1‡a.19	..	Donald Ropes B.	nil	..	B14¼	A14¼	14
1.75	.95	..	..	Donnell & Mudge	5100	1.35	1.30	1.20	1.20
14	12	..	..	Donohue Bros.	100	12	12	12	12
30½	30	..	..	Dow. Brew.	456	30	30	30	30
22	16½	1.30	..	Du Pont of Can.	2411	22	21¾	21	21¼
83	75	3.75	4.8	Do. pfd.	25	82	82	79	79
7⅝	6½	.55	7.9	Dupuis Fre. A	225	6¾	7	6¾	7
				E					
10	6	..	..	East Koot. pr.	nil	..	B7	..	10
135	80	11.75	..	Do. pref.	nil	..	B130	A135	135
..	..	4.00+*1.50	..	E. Bak. 4% pf.	nil	..	..	..	90
8⅜	4⅛	..	..	East Steel	2213	5	5⅛	4½	5
13	9	.20+1.25	..	Easy Washing	20	9	9	9	9
15⅛	14½	1.00	6.9	Do. pref.	100	15	14½	14½	14½
40½	34	1.00+1.60	..	Economic Inv.	60	40½	40	40	40
27¾	25	1.75	..	Eddy Match	nil	..	B25½	A25½	25½
50	47⅛	1.75	..	Eddy Paper	25	48	47⅞	47⅞	47⅞
58	49	1.00	2.0	Do. A	250	49⅝	50	49½	49½
2.50	2.00	*.08	..	Edmon. Con.	100	2.50	2.50	2.50	2.50
..	..	..	..	Electra Invest.	nil	..	B.98	..	1.25
11⅝	10½	a1.00	..	Electrolux	nil	..	B10	A11	10½
79	58	1.75	..	Empire Life	nil	..	B60	A63	60
6	5	.40	7.3	Enam. & Heat.	nil	..	B5½	..	5½
1.00	1.00	..	..	Do. B	nil	..	B1.00	..	1.00
50	40⅝	1.65+.25	..	Equitable Life	25	43¾	45	45	45
6	5⅝	.60	10.0	Erie Fir. & W. A	nil	..	B6	..	6
2⅝	2¾	*.10	..	Do. B	nil	..	B2⅝	A2⅝	2⅝
19	19	1.04	5.5	Estabrooks Ref.	nil	..	B19	A23	19
.93	.54	..	..	Excelsior pf.	7900	.83	.90	.75	.90
				F					
18	15	1.50	8.7	Fam. Players	2026	17½	18	17½	17¼
23	17½	a1.50	..	Fanny Farm.	1115	20¾	20½	19¾	20
..	..	12.00+1.00	..	Federal Fire	nil	..	..	..	†53
33½	26	11.00	..	Federal Grain	195	26	27½	27⅛	27¼
28⅝	25	1.40	5.2	Do. pref.	60	26½	27	27	27
4½	4	..	..	Fibre Products	nil	..	B3½	A4	4
..	..	•	..	Do. pref.	nil	..	..	A3½	†4
9⅜	9½	.80	8.0	Fisher, B., A	38	†11	10	10	10
9	9	*.60	..	Do. B Exrts.	nil	..	B8½	A9½	9
5	2⅝	..	..	Fittings	100	3	3	3	3
10	9⅝	.60	6.0	Do. A	nil	..	B8	A9⅞	10
..	..	•	..	Flash Fast. pref.	nil	..	B13	..	†18
1.10	.70	..	..	Fleet Mfg.	2400	.85	.86	.80	.85
56⅝	50⅞	a1.20	..	Ford M. U.S.	1255	52	53½	52	53⅝
115½	98¼	5.00	4.8	Ford Motor A	4233	107⅛	108	104	103⅛
117	104	5.00	4.8	Do. B	nil	..	B108	..	104
4.50	4.00	..	..	For. Pr. Secs. N.	130	4.10	4.25	4.00	4.25
28	20	1.70	..	Foundation Co.	895	23⅞	23⅛	21⅝	22⅛
1.35	1.00	..	..	Do. rts.	28140	1.25	1.35	1.00	1.15
34	27	1.90+.30	..	Fraser Cos.	3395	27½	28⅛	27	28
..	..	.30+.60	..	Freiman	nil	..	..	..	†10
94½	94	4.50	4.8	Do. pref.	nil	..	..	A100	94
8	6⅞	..	..	Fruehauf	175	7⅛	7⅜	7⅛	7⅜
				G					
32¼	27	11.05	..	Gatineau Pwr.	2635	30¼	30½	30¼	30¼
105	100	5.00	4.9	Do. pref. 5%	99	100	101¼	100	101¼
108	105	5.50	5.2	Do. 5½% pfd.	50	105⅛	105½	105⅛	105½
6.00	4.85	.30+.05	..	Gen. Bakeries	115	5.75	6.00	5.87½	6.00
66½	53	1a1.00+1*	..	Gen. Dynamics	1070	57½	57⅞	56	57½
..	..	a1.50	..	Gen. Elec.	nil	..	..	..	56
42	37	a1.00	..	Gen. Motors	2586	40	41½	39⅝	41
38	33⅜	1*	..	Gen. Products A	nil	..	B36	A36	36
39	39	1*	..	Do. B	nil	..	B36	..	†36
8	6⅛	.40	5.8	Gen. St. Wares	365	6⅞	7	6½	6⅞
86	81	5.00	6.3	Do. pref.	10	83½	†80	†80	†80
200	142	4.00+12.00	..	Goodyear Tires	120	190	195	190	195
47¼	43	2.00	4.5	Do. pref.	240	44⅛	44¼	44	44
..	..	..	..	Gord. Belyea A	nil	..	..	..	102
7⅛	6½	.50	7.7	Gord. MacKay A	650	6⅝	6½	6½	6½
6⅞	6	.50	7.4	Do. B	nil	..	..	B6½	6¾
..	..	a1.00	..	Goulds Pumps. p.	nil	..	..	..	†16
13⅞	13½	1.00	7.1	Grafton A	nil	..	B13⅞	A14	†14
..	..	1.60+.10	..	Grand & Toy	nil	..	B36⅝	A49	49
47½	38	1.60	3.5	Gt. Lakes Pap.	2796	46⅛	46⅝	46	46⅛
27½	22	..	..	Gt. Lakes Pwr.	345	27¼	27⅛	26½	25⅞
23	22	1.25	5.4	Do. pfd.	25	23	†23¼	†23¼	†23¼
10⅞	5⅛	..	..	Gt. North Gas	4630	10⅛	10⅜	10	10⅛
6.50	2.75	..	..	Do. warr.	2887	6.50	6.50	6.00	6.50
43	41	2.50	6.0	Do. pref.	nil	..	B40	A42	41½
9	5½	.50	7.3	Gt. West Coal A	450	7	7	6⅞	6⅞
8⅞	5½	1.25	..	Do. B	355	5½	5½	†5¼	5½
300	282	13.00	..	Gt. West-Life	nil	..	B275	A285	280
19	19	2.00	11.0	Gt. W. Saddlery	nil	..	..	B18½	†18
5½	4⅞	.20+1.10	..	Greening Wire	25	5	5	5	5
5½	5¼	.40	7.6	Growers Wine A	nil	..	B5¼	A5½	5¼
21½	21	.70	3.3	Guaranty Trust	343	21	21½	21	21
4.50	2.00	..	..	Gurney Prod. c.	nil	..	B1.50	A2.30	2.20
21	10	1.60	16.1	Do. pref.	50	10	10	10	10
26⅝	22	11.20	..	Gypsum Lime	1707	24⅛	25	24¼	24⅝
				H					
17	16½	1.00	6.6	Hahn. Brass	nil	..	B14¾	A15	†15¼
15	14¾	.80	5.0	Do. A	nil	..	B14	A15	†16
16½	13	.90	5.3	Ham. Cot.	nil	..	B15¼	A18	†17
93½	85	5.00	5.9	Do. 5% pfd.	nil	..	B80	A88	85
7⅛	6	.60	10.0	Harding Carpet	nil	..	B6⅛	A6⅝	6
9	9	.50	7.7	Hartz, J. F., A	nil	..	B7⅝	A8½	†6½
29	25	*1.50	..	Hayes Steel	55	25⅛	27	27	27
4.00	3.75	..	..	Hees Geo. H.	nil	..	..	A3.75	3.75
7	6¼	1.30+.06¼	..	Hendershot Pap.	nil	..	B6¼	A6½	6¾
94	89	6.00	6.7	Do. pref.	20	90	90	90	90
.80	.70	..	..	Hillcrest Coll.	500	.70	.80	.80	.80
46	39½	1.80	3.9	Hinde & Dauch	15	45	46	46	46
1.65	1.75	..	..	Holden Mfg. A	nil	..	B1.50	..	†2.50
..	..	..	..	Do. B	nil	..	..	A2.00	1.75
..	..	..	..	Holt Renfrew	nil	..	B50	..	†45
..	..	5.00	5.0	Do. 1st pfd.	nil	..	B95	..	100
..	..	5.00	5.9	Do. 2nd pfd.	nil	..	B85	..	85
10⅛	9½	.50	5.3	Horner, F. W. A	nil	..	B9½	A10¼	9½
50	50	..	..	Ho. De LaSalle	nil	..	..	..	50
41	30	11.00+1.50	..	H. Smith Pap.	6370	32	32¼	30	32
45½	41½	2.00	4.8	Do. pref.	nil	..	B40	A40	42
2.70	1.35	..	..	Hubbard Felt	nil	..	B2.55	..	2.70
20½	14	1.50+*a.75	..	Do. A pref.	10	20½	†21	†21	†21
16	14	.80	6.5	Hughes-Owen A	nil	..	B14	A14½	†12¼
12½	12½	.40+1.20	..	Do. B	nil	..	B12⅝	..	12½
25⅛	25	1.60	6.3	Do. pfd.	nil	..	B25½	A26	25½
35	32	11.15	..	Huron-Erie	105	34	34	34	34
10⅞	9	1.45	..	Hydro Electric	300	10	10⅝	10⅝	10⅝
				I					
60	46½	1.40+1.30	..	Imperial Bk.	1037	55	55⅝	55	55⅝
38	26¼	1.30+1.10	..	Imp. Flo-Glaze	25	27½	28	28	28
..	..	1.50	5.5	Do. pref.	nil	..	..	..	27½
13¼	9	.70	5.2	Imp. Invest. A	1962	13¼	13¼	13	13⅜
69	53	2.00	3.6	Imperial Life	nil	..	B54	A55	55
60	50⅜	11.60+1.10	..	Imperial Oil	10914	59⅛	59½	58⅝	59⅛
13⅝	11	1.25+.15	..	Imperial Tob.	7885	12⅛	12⅛	11⅞	11⅞
6⅛	5⅛	6%	4.1	Do. 6% pref.	350	5⅝	5⅝	5⅝	5⅝
32⅛	23	1.40	4.4	Indust. Accept.	3395	31⅛	32	31	31⅛
94	85½	4.50	5.3	Do. 4½% pfd.	5	86	†85	†85	†85
50	41½	2.25	5.2	Do. 4½% $2.50 p.	160	43	43	43	43
51¼	47⅞	2.75	5.4	Do. 5½% pfd.	490	51	52	50	51
11	10½	..	..	Do. warr.	740	..	11	10⅛	10⅛
8	8	.50	7.1	Ingersoll M. & T.	25	7	7	7	7
6.50	4.00	..	..	Inglis, John	4380	4.55	4.60	4.50	4.50
10⅝	9⅛	.60	5.7	Ingram pfd.	nil	..	B10½	A10¾	10⅛
24	16	..	..	Inland Cem. pf.	3641	22	24	21	24
12⅛	6⅛	..	..	Inland Nat. Gas	14151	11	11⅛	10⅝	11⅛
20	14½	1.00	6.6	Do. pfd.	2522	15	15¼	14⅝	15¼
6.50	3.30	..	..	Do. warr.	3345	3.90	6.00	5.50	5.75
4.50	4.00	.24	5.9	Interior Brew. B	400	4.50	4.35	4.10	4.10
12½	11½	1.00	..	Inter. Bronze	25	†14½	12	12	12
23½	21	1.50	6.7	Do. pref.	35	22	22½	22½	22½
83	80	a4.00	..	Int. Mill. pref.	nil	..	B83	..	80

Where there have been no transactions during the week covered, the word "nil" is shown under sales and the quotations shown are the bid, ask, and last sale price, instead of high, low and close.

Range 1957 High	Low	Div. $	Y'ld %	Company	Sales	Last June 7	Week end. June 14 High	Low	Close or Latest
111	94⅛	1a1.30+‡1.15	..	Inter. Nickel	11376	105½	107½	104	105
8⅝	8	*.35	..	Inter. Paints A	50	8	†7⅝	†7⅝	†7⅝
25	20	1.20+‡a.25	..	Do. pref.	nil	..	B25	A25	21
103⅛	90¼	a3.00+*	..	Int. Papers	1455	98¼	100½	98⅛	99
..	..	a4.00	..	Do. pref.	nil	..	..	..	100¼
57⅞	42½	a1.70	..	Int. Pete.	2466	54¾	54	52⅛	53
70	47½	a2.00+*	..	Int. Util.	3269	67⅝	68⅝	64⅛	64⅛
14	11¾	1.50	..	Interp. Bld. Cr.	nil	..	B11⅞	A11⅞	12
..	..	..	..	Do. A warr.	nil	..	..	A.25	†.30
1.55	1.05	..	..	Do. B warr.	nil	..	..	A1.75	†1.70
62	47	1.70	..	Interp. Pipe	9461	59¼	60⅛	57	57⅞
41½	41	12.30+.40	..	Invest. Foundat'n	nil	..	B42	A43	†40⅜
57	55½	3.00	5.5	Do. pref.	nil	..	B55	A60½	†54⅞
16½	15	..	..	Invest. Synd.	130	16¼	16½	15⅝	16½
16	14⅛	..	..	Do. A	1145	16¼	15⅛	15	15
1.80	1.10	..	..	Isotope	6700	1.80	1.65	1.55	1.65
				J, K, L					
24	21	1.50	6.9	Jam. Pub. Ser.	200	23	23	23	23
105	101	7.00	6.9	Do. pref.	nil	..	..	A101	101
..	..	1a1.00+*.25	..	Johns-Man.	nil	..	B47½	A43	45⅛
10⅞	10½	.60	5.7	Johnson T. 6% p.	210	10½	10⅝	10½	10½
13	16	.80+1.20	..	Journal Pub.	nil	..	..	..	16
9⅝	8	1.30	..	Kelvinator	515	8⅝	8½	†7⅛	8
95	95	..	..	La Comp. Fon.	nil	..	..	A95	95
19⅞	18	1.20	6.3	Labatt, John	1175	19	19⅛	18⅝	19
130	122	7.00	5.6	L. of Woods pfd.	nil	..	B122	A130	125
11½	10½	.60	5.7	Lambert, Alf. A	nil	..	B10½	A13	10½
18⅝	14⅛	.60	3.2	Do. B	nil	..	B15	..	18⅝
37½	37½	..	..	Langley's pfd.	nil	..	B30	A45	37½
..	..	..	..	Latonia	nil	..	B18¼	A19⅝	..
19½	17	1.00+1.25	..	Laura Secord	240	19½	19½	19¼	19¼
13⅞	9	.50+.10	..	Laur. Accept. A.	8270	13⅛	13⅝	13	13
19	17	1.20	6.7	Do. B	350	18⅛	18⅝	17⅛	18
.75	.12	..	..	Do. wts.	nil	..	..	A.50	.18
20	20	11.00	..	Lawson & J. A	nil	..	B19	A19½	20
25	25	11.00	..	Do. B	nil	..	B21⅛	..	25
9½	8½	.60	6.9	Lewis Bros.	195	8⅝	8⅝	8⅝	8⅝
83	70	11.03	..	Loblaw Groc.	25	†90	80	80	80
47	43½	11.03	..	Do. 2nd B pf.	nil	..	B48	A53	47
30	27	1.50	5.3	Do. 1st A pf.	1565	29¼	28½	28	28⅜
22	15½	.40	1.9	Loblaw Comp. A	327	22⅛	22⅝	22	22
22	16	.40	1.8	Do. B	2353	22⅝	22⅝	22	22
43½	41	2.40	5.8	Do. pfd.	770	42	42	41	41¼
93⅜	64½	a11.25	..	Loblaw Inc.	275	91	90	87	87½
1.75	1.75	..	..	Lochabar	nil	..	..	..	1.75
130	130	4.00+11.00	..	Loew's Theatres	nil	..	B121	..	130
9	7⅛	*.30	..	Lon. Can. Invest.	nil	..	B8	A9	8
1.60	1.30	1.60+*a.40	..	Lon. Hose	25	1.60	1.70	1.70	1.70
8⅝	8½	1.30	..	Do. A	nil	..	B6½	A8	6½
19½	18	1.40	..	L. St. Law. Pwr.	25	18⅛	18½	18½	18⅝
22	19¼	1.00	5.0	Lowneys	10	20	20	20	20
4.20	3.95	.24+1.03	..	Lucky Lager	2720	4.15	4.10	4.05	4.10
				M					
53	44	*3.00	..	Mackin Steel	nil	..	B46	A50	50
..	..	5.00	5.0	Do. pref.	nil	..	..	..	100
88	76½	2.00+1.50	..	Maclaren Pr.	930	85	85	80	80
34	28	.50	1.5	MacMil. & Blo. A	nil	..	..	A35⅜	32⅝
35	28	.80+1.20	..	Do. B	3000	31½	32	31⅛	31⅝
130	.91	..	..	Mages SP. G.	1200	1.05	1.05	.95	1.05
25	25	*.60	..	Mailman Corp.	nil	..	..	A25	25
96	90	5.00	5.4	Do. pref.	nil	..	..	A90	92
25	25	1.00	4.0	Do. C.C. pref.	nil	..	..	A24¾	25
10¼	8½	.40	4.7	Man. & Sask. A	nil	..	..	A9	8½
..	..	1.20	..	Do. B	nil	..	..	..	6
97	97	6.00+13.00	..	Man. Sugar pref.	nil	..	..	A94	97
22½	22½	1.60+.20	..	M.L. Gardens	4	†21½	†20¼	†20¼	†20¼
8⅞	7	.50	6.7	Maple Leaf M.	40	7⅝	7⅝	7½	7½
92	89	5.00	5.5	Do. pref.	40	91	91	91	91
7⅝	6	1.20	..	Massey-Harris	16867	7½	7⅝	7⅜	7⅝
87	79	4.50	5.3	Do. 4½% pref.	500	86	86	85	85¼
8	6	.50	7.5	Maxwell Ltd.	200	6½	6⅝	6⅝	6⅝
11⅛	9¾	1.00	10.0	McBrine pref.	nil	..	B10⅛	A11⅛	10⅛
26	24	.60	2.5	McCabe A	50	23½	24	24	24
26	25½	1.50+1.20	..	Do. B	nil	..	B24	A27	26
84	58¼	1.80+.05	..	McColl. Fron.	3996	79½	84	78½	80
96	90	4.00	4.4	Do. pref.	3	90¼	90	90	90
4	4	..	..	McMahon A	nil	..	B3⅝	A4	4
7½	6⅛	..	..	Melchers	6	7⅛	†4⅛	†4⅛	†4⅜
14½	10½	.60+1.20	..	Do. pref.	4	14	14¼	14¼	14¼
.10	.05	..	..	Mercury-Chip	nil	..	..	A.05	.07
48	44	2.75	6.0	Mersey Paper pf.	160	45	46	44	46
15½	12¼	1.25*	..	Mexican Lt. c.	596	14⅛	14	13½	14
13⅝	11⅞	1.30	..	Do. pref.	200	12⅛	12½	12½	12½
12⅝	10⅛	..	..	Mexico Tram.	105	10⅞	12⅝	12	12
19½	18⅛	*1.00	..	Mid. Pac. Grain	nil	..	..	A19½	19½
4.35	2.05	..	..	Midwest Ind.	8056	3.95	4.00	3.80	3.95
2.35	1.20	..	..	Do. warr.	1600	2.00	2.00	1.90	1.99
3.25	2.40	1.10	..	Milton Brick	375	2.55	2.55	2.50	2.55
34	28½	a.80	..	Minn. & Ont. P.	860	30⅞	31	29¾	31½
35	34½	1.25	3.6	Mitchell, J. S.	nil	..	..	A36	35
11	8	•	..	Mitchell, Robt. A	85	9	8¼	8	8¼
2⅛	1½	..	..	Do. B	225	1⅞	2	2	2
12½	11	1.25	..	Mod. Contain.	60	11½	12	11½	11½
14⅞	12	1.00	8.3	Do. A	60	12¼	12¼	12	12
26	22½	1.70	..	Molson Brew. A	1050	24	25	24	24½
25½	22	1.70	..	Do. B	55	24	24½	23½	24½
4½	4	•	..	Monarch Knit.	nil	..	B3½	A4½	4
50	45	•	..	Do. 4½% pref.	nil	..	B42	A46	†41
105	300	15%	..	Monarch Life	nil	..	B280	..	300
40	37	2.00+11.00	..	Monarch Mtge.	nil	..	B39	A45	40
..	..	..	..	Montrose	nil	..	..	..	..
18	15	1.00	6.1	Montreal Locom.	2155	16⅝	17¼	16⅛	16½
40	38	2.00	5.3	Mont. Refrig. & S.	nil	..	B38⅛	..	38⅛
40⅝	39	1.75+.25	..	Mont. Trust	5	39	39	39	39
70⅝	49½	1a1.30+.20	..	Moore Corp.	2253	67½	68	66½	67⅝
..	..	a7.00	..	Do. pref. A	nil	..	B1056	..	635
..	..	a7.00	..	Do. pref. B	nil	..	A1068	..	†896
22¼	20	1.41¼	..	Morgan, H.	2340	21½	21½	21½	21½
95½	93	4.75	5.1	Do. 4¾% pfd.	50	93	94	94	94
9½	8½	1.30	..	Mt. Royal Dairy	*125	8½	8½	8½	8½
15½	14	1.50+.20	..	Mt. Royal Rice	nil	..	B15½	..	†15¾
14	13⅛	..	..	Mussens	nil	..	B13⅛	A14	14
				N					
11¼	9⅛	.60+1.10	..	Nat. Drug.	515	11¼	10⅞	10¾	10⅞
12	10⅛	.60	5.5	Do. pref	360	†12½	12	10⅝	11
20	20	.60	3.0	Nat. Grocers	nil	..	B20	A20½	20
37¾	25	1.50	6.0	Do. pref.	50	25½	25	25	25
4.25	4.00	.20	4.7	Nat. Hosiery A	nil	..	B4.05	A5.00	4.25
4.85	4.00	.32	8.0	Do. B	300	4.00	4.05	4.00	4.00
..	..	1‡a1.50+1*	..	Nat. Leads	nil	..	B3.90	A4.05	..
29	25	1.50+2.50	..	Nat. Steel Car.	1045	28⅝	28	27⅛	27⅛
43	40	1.40+1.20	..	National Tr.	200	41	43	43	43
16	11	1.45	..	Neon. Prod.	518	15⅛	15⅝	14⅛	15⅝
57	42	1.50	2.7	Nfld. Lt. & Pwr.	931	55⅛	57	56	56½
47	40	2.00+1.50	..	Niag. W. Weav.	35	45	45	45	45
57½	47	2.00	4.0	Noranda	5849	50	50½	49½	50½
17½	11⅛	..	..	North Star Oil	7062	16⅝	17	16	16¼
6.25	3.15	..	..	Do. warr. 1956	805	5.90	5.60	5.10	5.35
41⅝	37	2.50	6.4	Do. pfd.	975	40	39	38⅝	39
8.50	4.25	..	..	Do. warr	2540	8.15	8.00	7.45	7.70
60	60	12.50*	..	North Can. Mtge.	nil	..	B60	..	60
30	25	1.60	5.8	North Que. Pwr.	73	27⅛	27⅛	26	27⅛
50	45	2.75	6.1	Do. pref.	75	47	47	45	45
4.50	3.95	1.07½	..	North Tele.	3280	4.35	4.15	4.00	4.15
83	78	4.00	5.1	Northwest U.P.	119	78	79	†76	79
16½	13¾	..	..	Northland U. N.	1200	†15	16⅛	14¾	16½
				O					
9	7½	..	..	Oakville Wood	nil	..	B8	A10	8½
16	16	1.40	..	Office Spec.	nil	..	B15	A17	†15½
39	30	1.00+1.50	..	Ogilvie Flour	1745	33	32	31	31¼
165	135	7.00	5.2	Do. pref.	30	139	135	135	135
12	10⅛	1.30	..	Okanagan Tel.	335	10⅛	10⅝	10⅛	10⅝
.50	.50	..	..	Ont. Beauty S.	nil	..	B.50	A1.00	†.49
7	6½	1.00	14.2	Do. pref.	nil	..	B6	..	7
2.65	1.90	.10	5.0	Ont. Jockey C.	13930	2.05	2.65	2.00	2.00
.95	.60	..	..	Do. warr.	2900	.70	.75	.67	.70
9½	8⅞	.60	6.8	Do. 6% pref.	125	8¾	8⅞	8¾	8⅞
9⅝	8	.55	6.7	Do. 5½% pref.	75	8⅛	8¼	8	8¼
28	.25	1.00+1.15	..	Ontario Loan	20	25	25	25	25
26	21½	1.00+1.50	..	Ontario Steel	1000	25¼	26	25¼	25½
..	..	7.00	4.4	Do. pref.	nil	..	B125	..	†160
3.00	2.50	•	..	Orange Crush	225	2.90	2.90	2.75	2.75
				P, Q					
..	..	1.60	..	Pac. Atlantic	nil	..	..	..	3.60
39	35	1.00+11.00	..	Pac. Coast Tms.	nil	..	..	..	†36
143	100	3.60+.50	..	Page Hersey	1285	139⅝	139⅛	137½	137½
12	12	.60	6.7	Paton Mfg.	nil	..	B10⅝	A12	12
22½	22½	1.40	6.2	Do. pref.	nil	..	..	A22½	22½
9	6⅝	..	..	Paul S.S.	nil	..	B8⅛	..	9
18	14½	..	..	Pembina Pipe N.	6700	15⅝	15½	14¼	14½
47¼	46	2.50	5.4	Do. 5% pref.	130	†47½	47	46	46
26½	22	11.05+1.10	..	Penmans	80	26	26⅛	26	26
118	110	6.00	5.5	Do. pref.	5	110	110	110	110
23	20	1.15+.05	..	People's Cr. Jr.	nil	..	B16	A19	20
99	97	6.00	6.3	Do. pfd	nil	..	B93½	A97	†95
49⅝	39⅝	2.00+1.12½	..	Photo Eng.	nil	..	B41	A44	42
46½	38½	1.20+1.30	..	Powell River	5298	42⅝	43⅝	42⅛	43
80½	55	2.00	2.5	Power Corp.	2109	79	80⅝	78½	80
45	42½	2.25	5.2	Do. 1st pref.	30	43½	43½	43½	43½
70	64½	3.00	4.3	Do. 2nd pref.	30	67⅝	70	70	70
5.75	4.50	..	..	Premier Steel	700	4.50	5.00	4.75	4.75
88	85	4.00	4.6	Premier Trust	25	†94	87	87	87
1.65	1.10	1.06	..	President Elec.	29700	1.50	1.65	1.35	1.55
59	49	3.00	5.7	Price Bros.	2965	51½	53⅝	52	52½
86½	83	4.00	4.8	Do. pref.	nil	..	..	A81	83
.95	.35	*.02	..	Propane Credit A	nil	..	B.85	..	.85
13¾	11	1.00	7.5	Prov. Transport	510	13	13½	13¼	13¼
46	41	2.50	6.0	Do. 5% pref.	75	42	42	41⅝	42
32	27½	1.40	4.4	Quebec Power	760	30½	32	31	32
25⅛	18½	1.35	..	Que.-Telephone	985	25	25	23¼	23¼
..	..	.75	0.4	Do. A	nil	..	..	..	180
..	..	.60+1.15	..	Quinte Milk	nil	..	B3.75	..	6.00
11¾	11	1.15	..	Do. A	50	11¼	†10⅛	†10⅛	†10⅛
				R					
..	..	1.10+1.10	..	R. & M. Bear. A	nil	..	..	..	†18
10¼	8½	1.80	..	Rapid Grip	25	9⅛	9¼	9¼	9¼
..	..	..	..	Rayonier	nil	..	..	..	..
16⅛	14½	1.20+1.10	..	Reitman's	700	15	15	15	15
15	14¾	1.10+1.20	..	Reynolds-Ch. A	nil	..	B15¼	A20⅝	14⅝
94	84	4.75	5.7	Reynolds-Al. p.	nil	..	..	A85	84
45	38	..	..	Ridgeway	nil	..	..	A43½	44½
10½	8⅝	..	..	River S. Mill A	70	†13	†15	†13½	†15
4.75	4.00	•	..	Do. B	nil	..	B5	..	†5.00
18	18	•	..	Robertson, J.	50	18	†16½	†16½	†16½
17½	15	1.60	..	P. L. Robertson	15	16⅝	16⅛	16⅛	16⅛
20	18	1.00+a.24	..	Do. pfd.	nil	..	B18	A19½	19
4½	3	..	..	Robinson Cotton	nil	..	B3	A3	4½
..	..	..	..	Do. pref.	nil	..	..	A2.90	3.00
10	8	.80	8.4	Robinson Little	10	10	9½	9½	9½
14	12	1.00	8.0	Do. A	nil	..	B12⅝	A13⅛	12½
25⅞	16½	1.60	..	Roe, A. V.	8748	25	25⅛	23	24⅝
19	17	.80	4.3	Rolland Pap. A	105	18⅝	18⅝	17½	18⅝
22	20½	.40	1.8	Do. B	50	21½	22	22	22
80	73	4.25	4.9	Do. pref.	nil	..	B75	A80	†76
*77	64	2.08+1.25	..	Royal Bank	5148	76⅝	77	75⅝	76⅝
11¼	11	.60	5.5	Royal O. Dairy A	25	11¼	11	11	11
12⅞	10	.80	7.6	Russell Indust.	1543	11⅝	11⅝	10⅝	11⅝
				S					
16⅛	10½	..	..	St. Law Cem.	915	16	16⅛	13⅝	13⅝
18⅝	15½	1.75	..	St. Law. Corp.	9360	16⅛	16⅝	16	16⅛
98	94	5.00	5.3	Do. 5% pref.	225	96⅛	96⅛	94	94
1.10	.75	..	..	St. Maurice Gas.	..	.83	1.10	.80	1.05
12½	11⅞	1.30	..	Sangamo	100	†12	11⅛	11⅛	11⅛
15⅛	14½	1.50+1.20	..	Sarnia Br.	90	15	15	15	15
3.25	2.10	..	..	Sask. Cem. p.	53230	3.00	3.50	3.00	3.50
..	..	.80	8.9	Scarfe & Co. A	nil	..	..	A9½	†9
..	..	1.10*	..	Do. B	nil	..	B1.00	..	7⅛
15	12⅛	1.00	8.0	Scythes & Co.	nil	..	B13	A15¾	12½
21	21	1.25	6.0	Do. pref.	nil	..	B20	..	21
96½	80	2.00	2.1	Shawinigan Pr.	3590	86	90	83⅛	83⅞
46	40⅝	2.00	4.8	Do. 4% pref. A	383	43	42	41	41½
48	47	2.25	4.8	Do. 4½% B	335	47	47⅛	47	47⅛
101	90¼	4.00	4.0	Do. A	475	101	102	101	101
15¼	13	a.30	..	Sheraton	nil	..	..	..	13
40	38¾	7.00+1.25	..	Sher. Wms.	35	†38	38⅝	†38	†38
133	130	7.00	5.4	Do. pref.	nil	..	B131	..	131
15	9⅛	1.30	..	Shirriff-Horsey	7118	14⅛	15	13⅝	14⅛
29¼	24⅛	1.37½	4.8	Do. 5½% pf. A	400	28	29⅛	28	28⅝
23	20¼	1.20+1.20	..	Sicks Brews.	684	21	22	21	21½
22	19⅛	1.20+1.20	..	Do. V.T.	115	20⅛	21	20⅛	20⅝
31	29⅛	.90	3.1	Sidney Roofing A	70	29½	29½	29½	29½
19	17½	1.00	5.1	Silknit	nil	..	B19½	A24	†19½
37⅝	37⅛	2.00	5.4	Do. pref.	nil	..	B37⅛	..	37⅛



Range 1957 High	Low	Div. $	Y'ld %	Company	Sales	Last June 7	Week end. June 14 High	Low	Close or Latest
11	9	1.60	6.0	Silverwoods A	235	9¾	10	9¾	10
11⅛	10¼	1.60	6.0	Do. B	4	†10	†10	†10	†10
21	17	1.30	..	Simon & Sons	nil	..	B20¼	A25	21
95	95	5.00	5.3	Do. pref.	nil	..	..	A95	95
21	17½	.50	2.6	Simpsons	3043	19⅛	19	18½	19
5.37½	2.50	..	..	S.K.D. Mfg.	3140	5.37½	5.87½	5.00	5.25
19	17	1.75	..	Slater, N.	150	18½	18⅝	18	18
42½	42½	2.12	5.0	Do. pref.	nil	..	B42½	..	42½
49	45	2.80	6.2	Somerville pfd.	35	49	46	45	45
55¾	47	11.00	..	Southam	185	51	53	51	51
60	40	11.87½+11.00	..	So. Can. Pr.	55	56	57	55½	57
136	123	6.00+11.00	..	Do. pref.	25	125	123	123	123
108	102½	6%	1.6	Sov. Life 25% pd.	nil	..	B102	..	106
225	225	..	..	Do. 100% A	nil	..	..	..	225
11¼	8	..	..	Spartan Air	1650	11	10⅝	10	10½
..	..	11.00+*.25	..	Stand. Brands	nil	..	..	..	40
43	34	1.50+1.50	..	St. Pav.	500	42½	43	42	42½
12½	11⅛	.60	4.8	Stand. Radio A	nil	..	B12	..	12½
8⅛	7⅝	.60	8.0	Stan. Broc. A	nil	..	B8	A8	7½
8½	7	.40	5.1	Do. B	nil	..	B6	A7⅞	7⅞
26⅝	23½	1.00	4.1	Stedman Bros.	500	24	24⅛	24	24⅛
73⅝	60	11.20+.30	..	Steel of Can.	5172	71⅝	72½	71	71⅝
100	97½	5.25	5.3	Steinb'g 5¼% pf.	50	†98½	98½	98½	98½
44⅛	44	1.60+1.40	..	Sterling Trust	nil	..	B42⅛	A46	†42⅛
5.00	4.75	..	..	Stovel Press pref.	300	5.00	5.00	5.00	5.00
17½	14¼	1.00	6.7	Stuart, D. A.	110	14⅛	15	14⅛	15
..	..	..	..	Suez Canal Cap.	nil	..	..	..	†157½
..	..	..	..	Do. Founders	nil	..	..	..	†188
..	..	..	..	Do. Jouissance	nil	..	..	..	†98
12⅛	9	.50	5.0	Sun Publishing A	3390	10⅛	10⅛	10	10
12⅛	8½	1*	..	Do. B	4445	10⅛	10	9⅝	10
9	4½	..	..	Sup. Propane	20706	8⅝	9	7⅝	8¼
23	19	1.40	6.7	Do. pfd.	100	20	20⅞	20⅞	20⅞
3.90	1.25	..	..	Do. warr.	3655	3.20	3.90	3.30	3.50
21⅛	17	.80	3.9	Sup. Pete ord.	4985	19	21	19⅛	20⅝
4.95	2.75	1.08	..	Do. com. new	550	4.25	4.95	4.50	4.50
99	95½	5.00	5.1	Do. pref.	nil	..	B96	A98½	98½
5.50	3.50	1.07	..	Switson Ltd.	400	4.00	4.00	3.95	3.95
				T					
43⅛	37¾	1.30+1.70	..	Tamblyn	480	38	38⅛	38	38
45	43½	2.00	5.0	Do. 4% pref.	nil	..	B37½	A42	†40
10	9	1.50+1.10	..	Taylor Pearson	10	9¼	9¼	9¼	9¼
10	9⅛	.50	5.3	Do. 5% pref.	nil	..	B9⅛	A9⅛	9⅛
70⅛	58⅝	a4.50	..	Texas Co.	nil	..	..	..	70⅛
6⅛	5⅝	1.15	..	Third Cdn. G.I.	300	6	6	6	6
4.10	3.70	1.10	..	Thompson, P. B	nil	..	B3.75	A4.10	3.90
..	..	.50	8.3	Tip Top Can. A	nil	..	..	..	6
11	10	•	..	Tip Top Tailors	200	10	11	11	11
.70	.65	..	..	Tooke Bros.	57	.65	.70	.70	.70
1.75	1.40	..	..	Do. pfd.	2451	1.40	†.35	†.25	†.25
49	42¼	1.30+1.20	..	Tor. Dom. Bank	1896	44⅝	45	44¼	45
20	17½	.80+1.20	..	Tor. Elevators	150	17⅝	18½	18	18½
36	32	1.50+1.10	..	Tor. Gen. Tr.	356	36	36	35½	36
30	22¼	1.00	3.5	Toronto Iron	30	29⅛	30	28⅝	28⅝
31	20	1.00	3.4	Do. A	570	29⅛	30	29⅛	29⅛
108	103	5.00	4.9	Tor. Mtge.	nil	..	B101	..	103
..	..	1.75	..	Tor. Savings	nil	..	B37	..	36
33	30	1.20+1.30	..	Traders Bldg.	nil	..	B30⅛	..	33
42⅛	36⅝	2.40	5.8	Traders Fin. A	5134	41⅛	41⅛	41	41⅛
41⅝	37	2.40	6.0	Do. B	5	37⅛	40	40	40
87⅝	87	4.50	5.1	Do. 4½% pref.	nil	..	B87½	A90½	87½
..	..	..	..	Do. warr.	nil	..	B48	..	48
17½	17½	1.00	5.9	Do. A rts.	nil	..	B17½	..	17½
..	..	1.00	5.3	Do. B rts.	nil	..	B18¾	..	†18¾
48	39	2.00	4.4	Do. 5% pfd.	475	43½	48	43½	45⅝
5⅝	4½	..	..	Transair A	50	4⅝	4⅝	4⅝	4⅝
95	50	..	..	Do. B	2900	.75	.80	.75	.75
12	8½	*‡‡1.00	..	Trans-Can. C.F.	300	8½	8	8	8
145	104	*‡‡1.00	..	Trans Mt. Oil	6648	124	124⅝	118	118¾
32	17	..	..	Trans-Prairie	1225	27½	29	25⅛	26⅛
				U					
6.50	3.60	1.10	..	Union Accept.	100	6.00	6.25	6.25	6.25
8½	7	.60	7.3	Do. pref.	100	8¼	8⅛	8⅛	8⅛
86	62⅛	11.10	..	Union Gas	3050	77½	78½	76	77⅛
6.65	5.40	..	..	Do. rts.	27446	5.50	5.80	5.40	5.65
9	9	.50	5.6	Un. Amuse. A	100	†9	9	9	9
7⅛	7	.50	8.9	Do. B	nil	..	B7⅛	..	†9
9	9	..	..	Do. A V.T.	nil	..	B8⅛	A9⅛	9
17½	13¾	1.30	..	United Can. Shs.	nil	..	B11	A13	13¾
29½	25⅞	1.50	5.6	United Corp. A	nil	..	B25⅝	A30	27
24⅛	19½	.40+1.35	..	Do. B	nil	..	B23	A23⅛	24
..	..	..	..	United Distill	nil	..	B11	..	†11
60	56	3.00	5.2	United Fuel A pf.	55	57½	58	57½	58
65	39	11.00	..	Do. B pref.	225	63	65	62	62
16⅝	15½	1.00	6.3	United Grain A	253	16⅛	16	15⅝	16
18	14⅝	1.00	6.5	United Steel	2215	16⅝	15⅛	15¼	15¼
27	21	1.80+*	..	Universals	25	23⅛	25⅛	25⅛	25⅛
				V, W					
4.50	3.00	..	..	Vanadium All.	400	4.25	4.50	4.25	4.50
68	66	2.00+11.00	..	Viau Limited	nil	..	B63	A72	†64
7	5	.50	10.0	Viceroy A	300	5	5⅛	5	5
3¼	2	..	..	Do. B	150	3	2	2	2
25⅛	24	1.50	..	Victoria & Gr.	40	24	24⅛	24⅛	24⅛
12⅝	11⅛	1.25	10.0	Vir. Dare 5% pf.	nil	..	B12⅛	A14⅛	12
4.50	3.10	..	..	Wainwright	3675	4.00	4.00	3.90	3.90
82⅞	67⅞	3.00+11.00	..	Walker-Good.	16066	74⅛	82⅞	73¾	79
10⅛	6⅛	..	..	Watermans Pen	950	7	7	6⅛	6⅛
18⅝	12½	1.40	..	Waterous Eqpt.	1525	13	13	12⅝	13
4.70	2.75	..	..	Webb & Knapp	6225	4.30	4.30	4.10	4.10
78	78	14.00+11.00	..	Wellington Fire	nil	..	..	..	78
..	..	..	..	Wesley Mason pf.	nil	..	..	A23	14
18⅝	15⅝	1.20	7.1	Westeel	101	17⅛	17⅛	17	17
26	25	1.20	4.6	West. Can. Brew.	472	26	26	26	26
36⅛	33	2.00	5.8	West Grocers A	nil	..	B33½	A34⅛	34⅛
28	25	1.40	5.6	Do. pref.	nil	..	B25	A27	25
130	116	7.00	6.0	West Koot. pf.	nil	..	B116	..	116
17	13⅛	1.30+1.35	..	West Plywood B	490	15⅝	15⅛	14⅝	14⅝
26	23⅛	.50	2.1	Westminster P. A	nil	..	B24	..	23⅛
26⅛	22⅛	.70+1.10	..	Do. B	170	24⅛	25	24	24
27¾	18⅛	1.27½	..	Weston, G. A	2995	27	27⅛	25⅛	27⅛
28	19⅛	1.27½	..	Do. B	2285	27⅛	27⅛	26	27⅛
94	89	4.50	5.1	Do. 4½% pref.	28	91	89	†85	89
12.00	6.55	..	..	Do. warr.	2925	10.62½	11.37½	10.25	11.25
..	..	2.80	7.0	White Hard pfd.	nil	..	..	37	†40
12⅛	9⅛	..	..	White Pass Y.	nil	..	B11⅛	A11⅛	†12⅛
41	41	1‡‡1.00	..	Willson Stat.	nil	..	B40	A44	41
95	94⅛	5.00	5.3	Do. pref.	nil	..	B95	..	95
10	9⅛	*.25	..	Wilson, J. C.	nil	..	B9⅛	..	9⅛
55	41	*1.00	..	Windsor Hotel	100	47	45	45	45
19	10⅛	..	..	Winnipeg Gas	2525	17⅛	17⅛	17	17½
550	500	..	..	Wpg. Win. Club	1	550	550	550	550
3.75	3.25	*.30	..	Wood Alex.	25	3.75	3.65	3.65	3.65
105	105	5.50	5.9	Wood, G. H. pfd.	25	†98	†93	†93	†93
38	38	..	..	John Wood	120	..	38	38	38
.50	.50	..	..	Woodford A	nil	..	B.50	..	.50
.10	.10	..	..	Do. B	nil	..	B.10	..	.10
47	41	•	..	Woods Mfg.	25	41⅛	41	41	41
12	10	1.25	..	Woodward A	3440	10⅛	11	10⅛	11
3.50	3.00	..	..	Wool Combing	nil	..	B2.65	A4.00	†2.65
				Y, Z					
1.65	1.35	..	..	York Knitting A	nil	..	B1.70	A1.70	1.50
.70	.60	..	..	Do. B	nil	..	..	A.50	.60
31⅛	23	1.50	..	Zellers	835	31	31⅛	31	31
45	43⅛	2.25	5.1	Do. 4½% pref.	nil	..	B44⅛	..	45

aU. S. funds. aaParticipating divd. •Dividend deferred. ■Stock divd. ‡‡Initial. ‡Shown in francs. ■■On arrears. *Payable in 1956 to date. †Less than Board lot. ‡Note—When sales show nil the figures are bid, ask and latest sale. ‡‡In arrears. ‡Payable in 1957 to date. ‡Extra paid in 1956.

Volume of Stock Sales

	Montreal	Toronto	Calgary	Vancouver	New York
June 17	614,100	2,320,000	190,325	60,146	3,220,000
June 14	637,300	3,153,000	171,464	137,202	3,050,000
June 13	692,000	4,332,000	126,722	188,000	3,740,000
June 12	1,121,900	5,237,000	124,520	131,615	3,750,000
June 11	1,097,200	5,851,000	115,810	140,253	2,880,000

New Highs and Lows

During the week ended June 14, 39 new highs and 28 new lows were recorded among the general stocks on Canadian stock exchanges. In the mining group there were 33 new highs and 56 new lows. In western oils there were 20 new highs and seven new lows.

GENERAL

New Highs — 1957

Acadia Atlan. · Aluminium new · Bk. of N. Scotia · Calgary Pwr. · Cdn. Oil · Cdn. Propane · Cl. Neon pfd · Cons. Press A · Cons. Gas · Corbys Vot. · Hillcrest Coll. · Inland Cem. pfd · Invest. Synd. · McColl Fron. · Mexico Tram. · National Tr. · Nfld. Lt. & Pwr. · Northland Util. W. · Ont. Jockey C. · Pem Pina Pipe N. · Power Corp. · Do 2nd pf. · President Elec · Rolland Pap. B · St. Law. Cem. · St. Maurice Gas · Sask. Cem. P. · Shawinigan Pr. A · Shirriff-Horsey pf. · S.K.D. Mfg. · St. Pav. · Sup. Prop. warr. · Sup. Pete Com. W. · Tooke Bros. · Trad. Fin. 5% pf · Un. Amuse A · Vanadium All · Walker-Good. · Zellers

New Lows — 1957

Bowat. N.A. 5½%p · Boyles B · B.C. Elec. 5% pf · Do 4½% pfd · Burns & Co. · Cdn Oil 4% pref · Cdn. Silk A · Cdn. Tire · C Div Sec Pref · Cons. Paper · Crestbrook Tim. · Dom. Dairies · Easy Washing pf · Foundation rts. · Fraser Cos. · H. Smith Pap. · Mersey Pap. pf. · N. Que. Pwr. pf. · Northwest U.P. · Pembina Pipe N. · Sangamo · Sher. Wms. · Somerville pfd · Trans-Can. C.F. · Viceroy B · Watermans Pen · Waterous Eqpt. · Weston G 4½% pf

MINING

New Highs — 1957

Aconic · Area · Atlas Sulphur · Candore · Cons. Fenimore · Cons. Mosher · Dome · E. Malartic · Graham Bousquet · High Bell. · Iso. Uran · Kerr Lake · Lakeshore · Lamaque · Leitch Gold · Little L.L. · Macassa · Malartic · Martin Men. · N. Calumet · N. Dick'n · N. Har'na · Orenda · Partridge · Powell R. · Star Uran · Sylvanite · Taxin · T. Hughes · Ultra Shaw. · Ventures · Do rts. · Wiltsey G.

New Lows — 1957

Ameranium · Barvallee · Beaucage · Bonville · Bouzan · Bulolo · Cdn. Dyno · Cdn. North Inca · Capital-Lith. · Captain · Castar · Cayzor · Cons. Howey · Cons. Monpas · Cons. Sannorm · Cons. Sudbury · DeCoursey B · Deer Horn · Donalda · Duvan · East Asb. · El-Pen-Rey · Geo. Scient. · Giant Mascot · Grandines · Gwillim L. · Heath · Jaye · Kirk. Min. · Louvicourt · Majortrans · Maritimes · Montpre · Montgary · N. Athona · N. H'Ridge · N. Indian · N. Jack Lake · N. Taku · Nor Acme · Obalski · Pamour · Pioneer G. · Pitt G. · Pronto · Purdex · Red Hawk · St. Michaels · Silbak · Sherritt G. · Trans. Res. · Virginia · West. Min. · Westville · Yale Lead · Yellorex

OILS

New Highs — 1957

Basco · Bonnyville · Britalta · Cdn. Admiral · Canso Nat Gas · Canso warr. · Fargo · Fort St. John · Futurity · Israel Cont. · Merrill Pet. · Midcon · N. Bristol · N. British · N. Concord · N. Davies · N. Gas Explor. · Pan West. · Royalite 5¼%pf · Stanwell

New Lows — 1957

Canadusa · Century · Humber · New Bristol · New Springer · Oil Selections · Petrol

Company Meetings

Date	Company	Place
Jun. 20	Anglo-Am. Explor.	Calgary
Jun. 20	Aumacho R.M.	Toronto
Jun. 20	Belcher M.	Toronto
Jun. 20	Cdn. Cottons Ltd.	Montreal
Jun. 20	Cdn. Williston M.	Calgary
Jun. 20	Coin Lake G.M.	Toronto
Jun. 20	Cons. Red Poplar M.	Toronto
Jun. 20	Fab Metals	Toronto
Jun. 20	Gridoil F.L. Ltd.	Calgary
Jun. 20	McKenzie R.L.M.	Toronto
Jun. 20	Nor. Can. Mtge. Co.	Winnipeg
Jun. 21	Baska Uran. M.	Winnipeg
Jun. 21	Bicroft Uran. M.	Toronto
Jun. 21	Brilund M.	Toronto
Jun. 21	Candore Explor.	Toronto
Jun. 21	Hi-Tower Drill.	Calgary
Jun. 24	Iron Bay M.	Toronto
Jun. 25	Bouzan M.	Toronto
Jun. 25	Cdn. Devonian Pet.	Regina
Jun. 25	Chimo G.M.	Toronto
Jun. 25	Coldstream Cop M.	Toronto
Jun. 25	Hard Rock G.M.	Toronto
Jun. 25	Kirkland Townsite	Toronto
Jun. 25	McWatters G.M.	Toronto
Jun. 26	Brunhurst M.	Toronto
Jun. 26	Calalta Pet.	Calgary
Jun. 26	Cdn. Eagle Oil	Toronto
Jun. 26	Cdn. Int. Pwr.	Montreal
Jun. 26	Chateau-Gai	Niagara Falls
Jun. 26	Colomac Tel.	Vancouver
Jun. 26	Cons. Tung. M.	Toronto
Jun. 26	Dom Coal Co.	Montreal
Jun. 26	Dom Textile Co.	Montreal
Jun. 26	Mex. Lt. & Pwr. Co.	Toronto
Jun. 26	Okanagan Tel.	Vancouver
Jun. 26	Parbec M.	Toronto
Jun. 26	Phillips Oil	Calgary
Jun. 26	Yukeno Mines	Toronto
Jun. 27	Asnazu Gold Dredg.	Vancouver
Jun. 27	Bibis Yukon M.	Toronto
Jun. 27	Brunsman M.	Toronto
Jun. 27	Brazilian Tr.	Toronto
Jun. 27	Cdn. Atlantic Oil	Calgary
Jun. 27	Cheskirk M.	Toronto
Jun. 27	El Sol M.	Toronto
Jun. 27	Francoeur M.	Toronto
Jun. 27	Ingram & Bell Ltd.	Toronto
Jun. 27	Lodhaber Oil Corp.	Montreal
Jun. 27	Marcon M.	Toronto
Jun. 27	New Jason M.	Toronto
Jun. 27	N. Senator R. Ltd.	Hull, P.Q.
Jun. 27	Nipissing M.	Toronto
Jun. 27	North Rankin N.M.	Toronto
Jun. 27	Pacific Petroleums	Calgary
Jun. 27	Purdex Min.	Toronto
Jun. 27	Woodford Roy'lty Corp.	Montreal
Jun. 28	B.C. Electric	Vancouver
Jun. 28	Cobalt Cons. M.	Toronto
Jun. 28	Cons. Gold arr.	Toronto
Jun. 28	East Koot. Pwr.	Montreal
Jun. 28	Iso Uran. M.	Toronto
Jun. 28	Orchan Uran. M.	Toronto
Jun. 28	Willroy M.	Toronto
Jul. 3	Geo. H. Hees Co.	Toronto
Jul. 4	Paton Mfg. Co.	Montreal
Jul. 5	New Cont. Oil	Calgary
Jul. 9	Can. So. Pet.	Calgary
Jul. 10	Indian Lake M.	Toronto
Jul. 10	Meta Uran. M.	Toronto
Jul. 31	Cdn. Collieries	Vancouver

Bond Redemptions

Bond Issues	Rate	Year	Date	Cal. pr.
*Dom. Sq. Corp., 20 Yr. 1st Mtge. Bds.	4%	'59	July 2	$101.50
‡Interprov. Pipe Line Co., 1st Mtge. & Col. Tr. Bds. Ser. B	3½%	'70	Jul. 1	$101.23
‡Sao Paulo Electric Co. Ltd., 30 yr. 1st Mtge. Bds.	5%	'83	Jul. 1	par

‡—$109,630. ‡—$350,000. *—All outstanding.

Foreign Exchange

FOREIGN EXCHANGE RATES
Noon Value in Canada
Week Ended Jun. 14, 1957

	U.S. $	U.K. £
Mon.	95 9/32	2.65 23/32
Tues.	95 9/32	2.65 23/32
Wed.	95 13/32	2.66 4/32
Thurs.	95 11/32	2.66
Fri.	95 9/32	2.65 29/32
Ave.	95 51/160	2.65 143/160

U.S. rate reported by Bank of Canada.

U.K. bid rate reported by Toronto-Dominion Bank.

Mining Stocks

WEEK ENDING JUNE 14

Range 1957 High	Low	Company & Dividend ($)	Sales	Last June 7	Week Ending June 14 High	Low	Close
.14	.10	Acadia Ur.	2529	.13	.13	.12	.12
11.00	6.60	Aconic	20525	10.87½	11.00	10.00	10.50
11.00	7.25	Do. V.T.	2300	11.00	11.00	10.50	11.00
.11	.07	Ad Astra	8000	.10	.10½	.10	.10
10.25	5.00	Advocate	3895	7.70	7.80	7.20	7.20
.25	.25	Agassiz	nil	..	..	A.25	.25
.10	.05	Ainsworth	3500	.06	.07	.05½	.06
.44	.26	Akaitcho	5200	.31	.35	.30	.31
.20	.10	Alba	26000	.11	.13	.11	.11
25.25	18.25	Algom	2385	23.00	23.00	21.75	22.50
95.50	92.00	Do. 5% Debs	1350	93.50	94.00	93.50	94.00
17.00	8.00	Do. Warr.	1290	14.25	13.50	12.00	13.00
21.50	21.50	Do. V.T.	nil	..	..	A22.75	21.50
.70	.35½	Alscope	18500	.40	.44½	.40	.40
.11	.07½	Alta	1000	.08	.08	.08	.08
.29	.13	Amal. Lard	15767	.19	.23	.17½	.20
.17	.09½	Amer'm.	10800	.11	.11	.09½	.11
1.98	1.25	Am-Neph. .04	2300	1.30	1.50	1.30	1.40
.24	.12	Amer. Stand.	13500	.14	.14	.12	.13
.50	.50	Amos Lith.	nil	..	..	A.90	.50
2.00	1.40	Anacon	6028	1.45	1.50	1.40	1.50
13.00	11.50	Ang-Hur. .50	1050	11.50	11.50	11.50	11.50
.84	.48	Anglo-Rou.	5500	.65	.65	.63	.63
.30	.15	Anthonian	4100	.18	.20	.18	.20
2.20	1.65	Arcadia	45500	1.83	1.90	1.74	1.90
1.85	.37	Area	160625	1.20	1.85	1.15	1.29
.19	.12	Arjon	9500	.13½	.14	.13	.13
.10	.05½	Arno	1000	.08	.08	.08	.08
.12	.08½	Atlas Sulp.	22500	.09	.12	.09½	.12
.14	.10	Atlas Y'fe	6500	.11	.10½	.10	.10
1.16	.20½	Atlin-Ruff	160893	.70	.70	.51	.59
.17	.09	Aubelle	48000	.11½	.12	.10	.11
.20	.10	Aull	9000	.13	.13½	.11	.12
.29	.20	Aumacho	15750	.21	.24	.20	.24
.21	.10	Aumaque	46900	.12	.12½	.11	.12
2.01	1.60	Aunor .16	500	1.84	1.90	1.75	1.75
.12½	.06	Avillabona	10000	.08	.08½	.08	.08
		B					
1.75	.65	Baker Talc	5900	1.50	1.50	1.45	1.50
.14	.05	Band Ore	3000	.06	.06	.06	.06
.35	.13	Bandowan	96550	.13	.23	.15	.26
.42	.23½	Bankeno	67800	.32½	.38	.31	.32
.12½	.09	Banfield	2000	.09	.10½	.10	.10
.45	.25	Barnat	10650	.25½	.28	.25	.25
.32	.12	Barvallee	10000	.15	.15	.12	.15
.84	.40	Barvue	4600	.43	.45	.43	.45
.75	.64	Barymin *.05	6200	.64	.69	.65	.69
.92	.62	Base Metals	24200	.63	.68	.63	.68
.47	.25	Baska	267800	.39	.42	.38	.38½
1.50	.25	Bateman	13500	.43	.45	.37	.37
.11	.06½	Beatrice	10000	.07	.07	.06½	.06½
1.89	.96	B'tie-Duq.	25774	1.00	1.03	.98	1.02
1.75	1.00	Beaucage	5742	1.10	1.09	1.00	1.00
.40	.21	Beaver L'ge	17025	.22	.23	.21	.22
3.15	1.38	Belcher	319490	2.85	3.05	2.70	2.95
.69	.40	Bellechase	15100	.54	.56	.51	.51
.23	.12	Bell-Chib.	142500	.14	.23	.14	.19½
1.93	1.55	Belleterre .10	500	1.65	1.70	1.65	1.70
2.75	1.60	Bethle'm	29700	1.70	1.92	1.75	1.80
.32	.17	Bevcon	51765	.17	.18	.17	.17½
.12	.07	Bibis-Yuk	10400	.08½	.09½	.07	.09
2.65	1.75	Bicroft	21951	2.18	2.24	2.04	2.05
1.70	.90	Do. Warr.	6350	1.20	1.20	1.10	1.15
.70	.24	Bidcop	10177	.25	.25	.24	.24
1.12	.70	Black Bay	1700	.80	.85	.82	.85
.14	.08	Bonville	14000	.08½	.08	.08	.08½
.17	.08½	Bordulac	38100	.13	.14½	.12½	.13
.18	.04½	Boreal	2500	.05	.05½	.05½	.05½
.38	.20	Bornite	18000	.26	.27	.25	.25
.18½	.11	Bouscadillac	7500	.12	.14	.13	.14
1.55	.56	Bouzan	88800	.69	.72	.56	.60
.10	.07	Boymar	11200	.07½	.07½	.07	.07½
5.50	3.75	Bralorne $.10+.10	3300	4.10	4.50	4.25	4.40
.90	.41	Brilund	139791	.84	.83	.71	.75
1.07	.80	Broulan Reef	11350	.82	.82	.80	.81
.19	.08	Brunhurst	20000	.11	.12	.10½	.10½
.15	.07	Brunsman	315300	.09	.11	.08½	.09½
12.50	8.00	Brunswick	1805	8.50	8.50	8.05	8.05
.11½	.06½	Buffadison	27500	.09	.10	.09	.09½
2.50	.67	Buffo Ank *.05	9400	1.10	1.11	1.00	1.00
.21	.12	Buff. Can.	52000	.14	.17	.14	.15
.11½	.06½	Buff. R.L.	51500	.07½	.10	.07½	.08
6.50	2.80	Bulolo $.25	975	†3.80	4.05	3.80	3.95
.15½	.09½	Bunker Hill	3520	.09½	.10½	.10½	.10½
.82	.58	Burchell	66200	.68	.69	.61	.62
1.30	.96	Burnt Hill	nil	..	..	A.90	.99
.15	.15	Burrex	nil	..	..	A.40	.15
		C					
.11½	.07	Calumet	14000	.07	.08	.07	.08
12.50	9.15	Camp Chib.	10408	9.50	11.50	9.75	11.25
6.20	5.20	Camp R.L. ($.21¼+.05)	205	5.25	5.35	5.35	5.35
		Canada					
.60	.01	Can. Am. Cop.	nil	..	..	..	.01
		Canadian					
.24½	.13	Canadian Ast.	90354	.18	.20	.15	.15
2.70	1.60	Cdn. Dyno	20509	1.65	1.89	1.60	1.65
.45	.30	Cdn. Lith.	13700	.31	.33½	.30	.32
.36	.27	Cdn. Mal.	15100	.29½	.30	.29	.29
.40	.28½	Cdn. N. Inca	7704	.30	.32	.28½	.33
.14	.09	Cdn. Thor	12200	.09½	.10	.09	.10
.82	.30	Canalask	27300	.68	.70	.62	.67
.69	.25	Canam	12800	.30	.31½	.25	.25
.55	.30	Candore	33143	.37	.55	.36	.50
1.02	.60	Can-Erin	152106	.63	.75	.61	.72
5.00	2.46	Can-Met	50090	4.00	4.10	3.90	4.05
4.60	1.32	Do. warr.	5400	3.10	3.15	2.95	3.00
.35	.30	Canuba	18200	.21	.23½	.20½	.23
.10	.06	Canusa	nil	..	..	A.10	.07½
.54	.30	Capital	2100	.31	.30½	†.28	.30
.57	.30	Captain	192800	.33	.45	.30	.36
.73	.43	Cariboo	4125	.55	.55	.50	.51
.19	.10	Carnegie	11000	.10	.12	.10	.11½
.07½	.04	Cartier M.	14000	.04	.06	.04	.04
8.50	6.25	Cassiar Asb.	13005	6.90	6.85	6.25	6.25
5.35	3.00	Castle-Tre. *.10	1750	5.00	5.10	4.75	5.00
7.00	6.25	Cayzor	500	6.30	6.25	6.25	6.25
.15	.05	Cen. Man.	3500	.08	.08	.08	.08
2.90	1.25	Cen. Pat.	19000	2.50	2.50	2.15	2.16
.13	.09½	Cen. Porc.	5500	.10	.12	.09½	.09½
.28	.07½	Cheskirk	59500	.19	.19	.15	.15
.36	.26	Chesterville	3700	.33	.33	.30	.31
4.25	2.21	Chib. Jac.	28592	2.28	2.44	2.23	2.30
.60	.30	Chib. K'rand	6900	.35	.35	.33	.33
4.25	1.75	Chib. Min.	3600	2.00	2.20	1.95	2.20
1.52	.74	Chimo	28900	1.18	1.30	1.15	1.27
.46	.13½	Chipman	14500	.19½	.20	.17	.18½
3.65	2.85	Chromium	310	3.10	3.50	3.45	3.50
.40	.16	Cleveland	136200	.35	.37	.32	.34
....	....	Clix	nil	..	..	..	.12
7.00	3.55	Coast Cop.	nil	..	B3.50	A4.50	3.55
.54	.36	Cobalt	17325	.46	.50	.42	.42
1.25	.75	Cochen'r $.03	26050	1.07	1.20	1.07	1.07
.85	.28	Cody-Reco	377050	.79	.79	.60	.60
.17	.10	Coin Lake	11000	.12	.13	.12	.13
2.14	1.12	Col'stream	78700	1.21	1.25	1.17	1.19
.50	.30	Coleman A	nil	..	..	A.45	.45
.58	.25	Do. B	nil	..	..	A.45	.45
.16	.09	Cologuac	31500	.10	.12	.09	.10
2.80	1.80	Coniagas	12950	1.99	2.10	1.85	2.03
.45	.32	Coniaurum	5000	.40	.40	.33	.33
.44	.25	Conkey	9500	.35	.38	.30	.33
.21	.13	Conro	4500	.15	.15	.14	.14
.49½	.23	Con. B'keno.	17466	.37	.30	.28½	.25½
.23	.12½	C. Beta	6500	.16	.18	.18	.18
.27	.10	C. Bi-Ore	3500	.15	.15	.14	.15
.55	.22	C. Callinan	36200	.35	.36	.33	.34
.18	.10	Con. C. Cad.	2500	.12	.12	.11	.11
25.37½	12.75	C. Denison	30695	20.00	20.12½	19.00	20.00
17.50	5.50	Do. warr.	13590	12.50	13.00	11.75	12.00
3.50	2.75	C. Disc'y $.10	3375	2.85	2.85	2.76	2.80
2.05	1.20	C. Fenimore	105194	1.80	2.05	1.70	1.85
.50	.10	Do. warr.	900	.21	.38	.34	.35
.11	.08	C. Gillies	1500	.09½	.09½	.09½	.09½
.38	.18	C. Gold Arr.	4500	.32	.31	.30	.31
.00½	.00½	C. Goldfield	nil	..	B.01	....	.00½
.35	.18½	C. Guayana	8500	.20	.21	.18½	.19
1.38	.70	C. Hall'well	113907	1.03	1.10	.95	1.05
3.75	2.90	C. Howey	5247	3.05	3.05	2.90	2.95
1.09	.26	C. Marbenor	24760	.56	.60	.52	.56
.25	.15	C. Marcus	500	.18	.18½	.18½	.18½
.18	.10	C. Monpas	4000	.12	.10½	.10	.10½
.82	.22	C. Morrison	39900	.63	.69	.60	.62
.60	.42	C. Mosher	24150	.54	.60	.55	.57
.33½	.16½	C. Negus	24500	.26	.27	.24	.25
.16	.09½	C. Nich.	10533	.09½	.10	.09½	.10
1.05	.60	C. Northland	7909	.65	.70	.61	.68
.32	.16	C. Pershcourt	1000	.17	.17	.17	.17
.95	.65	C. Que. G.	500	.80	.81	.81	.81
.22	.11	C. Que. Y.	51350	.15½	.18	.13	.17½
.30	.15	C. Red Pop.	14044	.22	.23	.20	.21
1.89	1.12	C. Regcourt	61300	1.49	1.50	1.40	1.42
.18½	.09	C. San'rm	9000	.10½	.11½	.09	.10½
		Con. Smelt.					
28.75	23.00	$1.20+.80	16697	24.00	24.75	23.00	24.00
2.50	2.22	C. Sud'ry	237175	2.30	2.35	2.22	2.25
.40	.19	C. Tung.	19650	.22	.25	.20	.20
3.25	2.20	Con. Min.**	600	2.95	3.00	2.90	2.90
1.25	.85	Cont. Potash	10620	1.00	1.00	.90	1.00
7.50	5.25	Conwest	2190	6.25	6.25	5.85	5.90
1.23	.33	Copper Corp.	22100	.40	.52	.38	.41
.68	.35	Coppercrest	12600	.45	.48	.45	.45
.33	.14	Copper Man.	80725	.18	.18	.14	.15
5.20	3.30	Cop. Rand	8664	3.60	4.00	3.50	3.75
.14½	.06½	Cortez	25000	.07	.07	.06½	.07
1.00	.67	Coulee	17200	.80	.83	.74	.75
.18	.09	Cournor	3000	.10½	.11	.11	.11
1.70	1.20	Cowichan	23000	1.20	1.35	1.20	1.30
.15	.03½	Crestaurum	nil	..	B.09½	A.10	.09½
.28	.15	Croinor	4000	.16	.16	.16	.16
.42	.22	Crowpat	19200	.28	.28	.24½	.24½
....	....	Cryderman	nil	..	B.00½	A.01	.00½
.36	.16	Cusco	27842	.17	.17½	.15	.15½
		D, E, F					
.18	.15	Dablon	nil	..	B15	A.25½	.15
.35	.22	Daering	125	.35	.32	.32	.32
.17	.09	Daine	41000	.10	.11	.09½	.09½
.47	.25	D'Aragon	32500	.25	.29	.25	.26½
.60	.35	Decoursey B.	4125	.38	.41	.35	.40
.20	.07	Do. warr.	10600	.07	.09	†.06	.08
.34	.17	Deer Horn	3300	.19	.22	.17	.22
.16	.12	D'Eldona	13532	.13	.14½	.12½	.13
1.15	.76	Delnite .04	20800	.91	1.12	.96	1.12
.25	.12	Diadem	18100	.12½	.13	.12	.12½
.18	.12	Dickstone C.	1000	.14	.15	.15	.15
14.25	12.00	Dome .70+.05	20812	12.25	14.25	12.25	13.00
.37	.19	Donalda	30800	.20	.21	.19	.21
.10	.03	Doreen	1000	.05	.05	.05	.05
.73	.26	Duvan	17000	.31	.31	.26	.28
.26	.15½	Duvex	9650	.17	.18½	.16½	.18
.16	.09	East Amph.	84506	.15	.15½	.13	.13½
1.47	1.10	E. Mal *.06	32150	1.21	1.47	1.20	1.25
		East Sull.					
5.25	3.65	$.15+.10	3175	4.10	4.10	4.00	4.00
.50	.25	East Metals	23700	.26	.30	.26	.29½
.65	.40	East. Asb.	3500	.45	.44½	.40	.44
4.10	2.85	East. Min.	28236	3.25	3.60	3.15	3.20
.40	.28	Elder	1000	.30	.32	.30	.32
.37	.21	Eldrich	1700	.23	.27	.23	.27
.50	.25	El Pen-Rey	34733	.28½	.28	.25	.28
.82	.24½	El Sol	115393	.38	.38	.31	.34
.40	.18	Emerald	35300	.34	.37	.31	.34
1.03	.58	Eureka	21576	.67	.69	.62	.63
.49½	.27	Explor. All.	15300	.30	.31½	.30	.30
.29½	.15	Fab. Met.	9500	.18	.19	.18	.19
		Falconbridge					
42.75	33.25	$.50+.10	13236	33.25	37.75	35.00	37.75
.23	.14	Fano	9300	.17	.18½	.17	.17
3.20	1.46	Faraday	22150	2.78	2.75	2.60	2.68
1.95	.85	Do. warr.	15250	1.75	1.70	1.60	1.61
.41	.17	Farw't Tung.	31400	.25	.28	.25	.25
.24	.14	Federal	31300	.19½	.20½	.18	.20
.00¾	.00½	Flin Floo	nil	..	B.00½	A.00¾	.00¾
9.15	5.90	Florida	23951	8.00	8.00	7.70	7.95
.14	.06	Fontana '45	9500	.07	.07	.06	.06
.35	.35	Forty-Four	nil	..	..	A.40	.35
.21	.11	Francoeur	15100	.12	.13	.12	.14
3.10	2.50	Frobisher	19930	2.70	2.80	2.65	2.80
81.00	75.25	Do. 4% deb.	100	77.00	80.00	80.00	80.00
.22	.15	Fundy Bay	14500	.16	.18	.16	.18

Range 1957 High	Low	Company & Dividend ($)	Sales	Last June 7	Week Ending June 14 High	Low	Close
		G					
.25	.14	Gaitwin	36300	.18	.16	.14	.14
1.20	1.01	Galkeno	126472	1.18	1.18	1.01	1.02
37.50	29.75	Gaspe Cop.	500	27.00	25.00	25.00	25.00
18.87½	14.25	Geco	2971	14.50	15.50	14.50	15.00
.40	.20	Genex	10284	.25	.26	.24	.24½
1.25	.65	Geo-Scient.	1000	.90	.86	.85	.85
.27	.10	Giant Mas. *.06	7000	.13	.12	.10	.12
5.80	4.30	Giant Yk. $.15	2971	4.60	4.70	4.60	4.60
.70	.40	Glenn Ur.	85790	.43	.51	.44	.44
.28	.19½	Goldale	3100	.22	.24	.23	.23
.16	.11	Gold Crest	8000	.13	.13	.12½	.13½
.10½	.07½	Gold Eagle	2300	.08	.08	.08	.08
.04½	.01	Gold Lake	1000	.02	.03½	.02½	.03½
.45	.22	Gold. Age	16900	.27	.26	.26	.26
2.10	.85	Gold. Man.	19700	.98	1.00	.85	1.00
.33½	.16	Goldfields	15500	.23	.25	.18	.24
.25	.15	Graham R.	188765	.15½	.23	.18½	.21
11.00	8.00	Granby *.40	nil	..	B8.00	A8.50	8.10
.27½	.10	Grandines	20900	.14	.13	.10	.10
3.50	2.40	Granduc	2875	2.80	2.90	2.70	2.80
.17	.12	Grandview	nil	..	B.10	A.14	.12
.03	.03	Great Falls	nil	..	B.01	A.02	.03
.67	.36	Greyhawk	67050	.45	.40	.42	.42
.13	.08½	Gui-Por Ur.	2500	.10	.09	.08½	.08½
.49	.13½	Gulch	29000	.18	.18	.16	.16½
.13	.10	Gulf Lead	10000	.10	.12	.10	.10½
21.75	18.00	Gunnar G.	9433	19.27½	19.75	18.87½	19.37½
14.50	10.50	Do. warr.	4100	12.62½	12.75	11.50	12.00
.15	.08½	Gwillim L.	20700	.09½	.10	.08½	.09
		H, I, J					
.21	.08	Haitian	17500	.10	.10	.08	.09
3.00	2.00	Hallnor $.07	400	2.00	2.00	2.00	2.00
.09½	.02½	Hamil.	10000	.05	.06½	.06	.06
.18	.10	Hard Rock	21000	.14	.14½	.13½	.13½
.61	.22	Harr. Min.	27100	.26	.26	.22	.24
.27	.15	Hasaga	1000	.19	.19	.18	.19
.17	.09½	H'd. of Lakes	10500	.11	.12	.11	.11
1.07	.61	Headway	53700	.78	.76	.66	.68
.18	.10	Heath	58500	.12	.11½	.10	.10½
.12½	.06½	Heva	9075	.07	.08	.07	.07½
2.00	.82	H.-Bell $.06	184633	1.45	2.00	1.44	1.65
		Hollinger					
36.00	23.25	.24+1.26	7300	34.75	34.87½	33.75	34.00
7.00	4.65	Hoyle	13546	5.95	6.05	5.85	5.90
		Hudson Bay					
86.00	63.00	$3.75+1.00	6920	63.25	69.25	63.00	68.50
.65	.21	Hudson R.	77900	.34	.35	.31½	.34
.46	.25	Hugh Pam.	5500	.27	.30	.25	.26½
.24	.11	Indian L.	288000	.13½	.17	.12½	.14
.90	.61	Inspiration	13500	.75	.76	.70	.71
		Int. Nickel					
111.00	94.25	$a1.30+1.15	11376	105.50	107.50	104.00	105.00
.41	.26	Int. Ranwick	3000	.29	.28	.26	.28
2.20	1.01	Irish Cop.	9700	1.50	1.50	1.41	1.40
5.20	2.60	Iron Bay	4300	3.90	4.40	4.00	4.25
.02	.01½	Island Lake	nil	..	B.00½	A.02	.02
.84	.16	Iso Uran.	1349750	.43	.84	.48	.54
.38	.19½	J. Waite $.02	7500	.24	.26	.22	.25
1.30	.54	Jacobus	81072	1.16	1.25	1.15	1.25
.13	.04	Jardun	16500	.05	.06	.04½	.05
.96	.54	Jaye	73100	.58	.70	.54	.68
.47	.19½	Jeanette	75407	.46	.45	.40	.44
.63	.19	Jellicoe	77700	.20	.24	.20	.22
.28	.10½	Joburke	48800	.20½	.24	.20	.21
.73	.40	Joliet Que.	9900	.47	.48	.45	.45
.25	.15	Jonsmith	10000	.17	.18	.16	.16
1.05	.65	R. J. Jowsey	68894	.85	.85	.77	.80
		K, L					
.18	.09	Kenville	26000	.11	.10½	.09½	.09½
		Kerr-Addison					
17.50	13.00	.80	252372	14.75	14.50	14.00	14.25
1.20	.49	Kerr Lake	24400	.90	1.20	.80	1.20
2.80	2.00	Kilembe	7225	2.10	2.25	2.00	2.15
.98	.65	Do. warr.	7500	.75	.80	.72	.75
.26	.12	Kirk. H. Bay	164675	.14½	.18	.13	.14
1.34	.94	Kirk. Min.	26722	.95	1.04	.94	.95
.20	.13½	Kirk. Town.	15700	.13½	.18	.14	.14
.23	.10	Kontiki Ld.	11000	.15	.16	.14	.14
.03	.01½	Koot. Base	2000	.02	.02	.02	.02
25.00	18.00	Labrador $.25	3773	24.50	24.50	23.00	23.12½
1.60	.90	Lake Cinch	11800	1.34	1.35	1.30	1.30
1.83	1.05	L. Dufault	7425	1.35	1.40	1.35	1.40
.16	.10	L. Lingman	8050	.12	.13	.12	.12½
.39	.14	L. Osu	2000	.29	.28	.26	.26½
7.50	3.75	L. Shore *.10	15340	6.15	7.50	6.20	7.10
.19	.15	L. Wasa	2000	.15½	.17	.17	.17
4.25	3.00	La Luz .10	500	3.75	3.55	3.50	3.55
2.85	2.10	Lamaque $.10	710	2.30	2.85	2.50	2.75
1.53	.73	Leitch G. $.03	609317	1.21	1.53	1.18	1.23
.17	.10	Lencourt	13600	.12½	.12½	.11	.11
.42	.12	Lexindin	257900	.32½	.35	.29	.35
.13½	.06	Lingside	10500	.09	.09½	.08½	.08½
.60	.35	Lithium	1500	.45	.41	.41	.41
3.50	1.85	Little L.L.	85355	2.95	3.50	2.82	3.10
.13½	.08	Lomega	33534	.09½	.10	.08	.08
1.70	1.12	Lorado Ur.	26750	1.22	1.25	1.20	1.21
1.49	.80	Do. warr.	11900	.90	.95	.85	.85
.23	.12½	Louvicourt	3500	.14	.14	.12½	.14
.80	.30	Lyndhurst	8200	.31	.37	.31	.35
.11	.07½	Lynx Yk.	1000	.08	.09	.09	.09
		M					
		Macassa					
2.20	1.72	.12+$.03	25139	2.05	2.20	2.05	2.15
.65	.45	MacDonald	11325	.48	.48	.47	.47
.18	.08½	Macfie	26000	.13	.13	.11	.12
1.21	.95	Macleod $.05	17433	1.04	1.15	1.02	1.10
		Mad. R.L.					
2.05	1.46	$.05+†.10	6100	1.60	1.65	1.56	1.60
.11½	.07	Magnet	7500	.08	.08	.07½	.07½
.11	.06	Majortrans	34500	.07	.07½	.06	.06½
1.85	1.25	Malartic $.05	92425	1.60	1.85	1.60	1.70
.34	.13	Maneast Ur.	50200	.23	.26	.21	.23
.62	.19	Maraigo	50250	.43	.45	.40	.41
.15	.09	Marcon	3625	.10	.10	.09½	.10
2.10	1.30	Maritimes	32640	1.43	1.44	1.30	1.40
.21	.11	Martin McN.	166440	.15	.21	.17	.18
....	....	Massberyle	nil	..	..	..	.23
.60	.41	Matachewan	nil	..	B.55	A.65	.50
.89	.43	Maybrun	25966	.45	.49	.43	.46
		McIntyre					
115.00	71.50	2.00+$1.00	6451	114.00	114.75	108.50	109.00
.30	.21	McK. R.L.	11880	.30	.23	.23	.23
.20	.09	McMarmac	13600	.12½	.12½	.11	.12
.53	.31	McWatters	27500	.42	.45	.40	.44
.45	.26	Mentor Exp.	18900	.33	.36	.33	.35
.45	.30	Mercedes	5000	.34	.35	.34	.35
2.08	1.40	Merrill Is.	29040	1.50	1.55	1.41	1.50
.24½	.14	Meta Ur.	9000	.17	.17	.16	.16½
1.92	1.20	Mid-Chib.	78150	1.80	1.90	1.60	1.75
1.70	1.23	Midrim	42332	1.45	1.55	1.45	1.50
.64	.18	Midwest	11000	.37	.36	.25	.30
4.45	1.61	Milliken L.	30065	3.45	3.50	3.20	3.25
.17	.09½	Mindamar	2100	.12	.12	.12	.12
21.25	15.75	Mng. Corp. $.50	3500	16.00	18.00	16.00	17.50
.45	.23	Min. End.	5100	.28	.28	.26	.28
.30	.15	Min. Ore	15500	.18	.21	.16	.16
.65	.20	Mogador	6500	.22	.23	.20	.22
2.05	1.25	Mogul	5200	1.43	1.48	1.38	1.45
1.75	.96	Molyb'nite	2000	1.50	1.45	1.40	1.42
1.05	.66	Moneta *.05	3750	.80	.82	.78	.81
1.03	.25	Monpre	13900	.48	.48	.25	.32
2.64	1.80	Montgary	13300	1.90	1.93	1.80	1.80
1.16	.74	Multi Min.	5600	.83	.90	.80	.80
		N					
.84	.48	Nama Cr.	9454	.48	.52	.50	.50
.63	.35	Nat. Ex.	22400	.35	.37	.35	.35
.28	.13	Nealon	41012	.18½	.20	.14	.15
.46	.21½	Nello Min.	5000	.22	.23	.22	.23
.90	.51	Nesbitt	10700	.65	.63	.60	.60
.23	.13	N. Alger	16132	.14	.15	.13½	.14
.67	.35	N. Athona	9283	.40½	.43	.35	.40
.12½	.08	N. Bidl'e	11700	.10	.10	.08½	.10
.56	.23	N. Calumet	11400	.26½	.26	.23	.25
.20	.14	N. Cronin	600	†.13	†.10	†.10	†.10
1.24	.42	N. Delhi	68100	1.13	1.14	1.07	1.10
1.55	1.22	N. Dick'n $.05	6290	1.48	1.55	1.46	1.50
.62	.25	N. Formaque	89100	.25½	.34	.25	.28
.24	.12	N. Fortune	92700	.13	.20	.12	.14
.24	.11½	N. G'dvue	13500	.11½	.13	.12	.12
.36	.16½	N. Har'na	189075	.34	.36	.33	.34½
.48	.18½	N. H'ridge	26436	.24	.24	.18½	.23
.36	.19	N. Hosco	750	.24½	.27	.27	.27
.21	.14	N. Imperial	1000	.14	.15	.14	.14
.15½	.07	N. Indian	2000	.08	.08	.07	.07
.49	.12	N. Jack Lk.	12850	.13½	.14	.12	.14
.25	.10	N. Jason	12700	.16	.13	.10	.12½
.26	.14	N. Kelore	101600	.20	.21½	.17	.18
.53	.30	Newlund	62067	.48	.48	.43	.43
1.34	.80	N. Man.	24700	1.18	1.18	1.05	1.10
.52	.30	N. Minda-S.	13725	.31	.34	.30	.31
.20	.10	N. M'l'que	12500	.15	.15	.13	.13
.13	.08	Newnorth	3500	.09½	.09½	.09	.09
2.00	1.40	N. Pac. Coal	6200	1.80	1.95	1.80	1.93
.20	.11	N. Rouyn	2625	.14	.12	.12	.12
.14	.09	N. Santiago	10500	.10	.10	.09½	.10
.12	.05	N. Senator	9080	.08½	.08	.06	.08
.36	.16½	N. Taku	4250	.20½	.19	.16½	.17
.12	.06	N. Vinray	5500	.07	.07	.07	.07
.25	.11½	N.W. Amulet	nil	..	B.11	A.15	.11½
5.00	3.35	Nickel Rim	28000	3.45	3.65	3.35	3.65
3.35	2.40	Nipissing	10400	2.60	2.55	2.48	2.50
.14½	.08½	Nisto	23200	.08½	.09	.08½	.09
.11½	.07½	Nocano	nil	..	B.08½	A.10	.08½
.45	.21	N. Acme *.01½	7500	.24	.24	.21	.22
57.50	47.00	Noranda 2.00	5849	50.00	50.75	49.50	50.50
.34	.12	Norgold	31400	.20	.23	.20	.21
.13½	.08	Norlartic	5000	.09	.08½	.08	.08½
5.10	4.25	Normetal $.23	8178	4.40	4.70	4.30	4.70
1.50	1.09	Norpax	74850	1.28	1.30	1.20	1.30
.65	.32	Norsym'e	11495	.39	.40	.35	.38
.27	.19	N.A. Asb.	nil	..	B.21	....	.19
1.80	1.25	N. Am. R.M.	4750	1.70	1.75	1.65	1.70
1.67	.99	N. Rankin	90038	1.56	1.60	1.48	1.53
2.10	1.35	North Can.	7900	1.55	1.75	1.60	1.70
9.00	5.40	Northspan	15894	7.90	7.95	7.60	7.65
6.80	5.05	Do. warr.	3625	5.95	5.90	5.50	5.70
.22	.10	N.W. Vent.	nil	..	B.13	A.15	.14
.30	.17½	Nosvalie	8500	.19½	.20	.19	.20
.05	.02	Nuclear	nil	..	B.02½	A.03½	.03½
.45	.30	Nudulama	25551	.32	.44	.38	.41
		O					
.33	.15	Obalski	9500	.17	.19	.15	.18
.11	.07	Obaska	36400	.08	.10	.08	.09½
.92	.50	O'Brien *.02	12388	.72	.73	.71	.73
.23	.10	Ogama	13000	.11	.10½	.10	.10
.80	.26	Oka	6000	.27	.32	.30	.32
.47	.26	O'Leary	41725	.40	.40	.36	.36
.54	.30	Opemisca	9700	.32	.33	.32	.33
14.75	8.35	Opemiska	15596	11.75	12.50	11.50	12.25
.80	.11	Orchan	91400	.70	.72	.57	.62
.43	.18	Orenada	790150	.37	.43	.32	.38
.69	.26	Ormsby	30900	.51	.60	.50	.51
.54	.27	Osisko	41515	.46	.47	.42	.45
		P, Q					
.16	.09	Pac. East.	31375	.16	.16	.14½	.14½
1.35	.47	Pac. Nickel	44232	1.25	1.34	1.20	1.34
.57	.35	Pamour P.	1600	.43	.54	.35	.40
.13	.08½	Paramaque	6500	.10	.10½	.10	.10½
.10	.07	Parbec	9000	.07	.07½	.07	.07
1.28	.54	Pardee	14433	.92	.93	.86	.87
.34	.14	Partridge	145400	.14	.34	.16	.25
.97	.56	Pater	10270	.66	.76	.68	.75
		Pato Cons.					
5.35	4.00	$.25+.75	2025	4.15	4.15	4.00	4.10
.36½	.18	Paymaster *.01	16000	.23	.23	.21	.22
		Pend Oreille					
3.40	2.50	*a.12½	300	2.50	2.55	2.50	2.50
.45	.30	Pennbec	12700	.35	.34	.30	.34
.79	.27	Perron	488550	.74	.79	.67	.71
1.60	1.15	Pickle Cr. .10	12313	1.27	1.35	1.25	1.30
		Pioneer G.					
1.75	1.30	*.12½	6000	1.35	1.40	1.30	1.36
.15	.07	Pitch Ore	112500	.10	.11	.10	.10
.15	.07	Pitt G.	6400	.08	.09	.07	.09
13.25	10.50	Placer $.50	15577	11.00	12.50	10.87½	12.25
.17	.08½	Porc. Prime.	nil	..	B.08½	A.09	.08½
.75	.25	Portage	17800	.30	.33	.28	.28
1.00	.50	Powell R.	151400	.85	1.00	.78	.89
.43	.07	Prem. Bord.	33025	.08½	.09	.07	.07½
8.80	6.75	Preston .08	1250	8.00	8.00	7.90	7.90
8.35	6.00	Pronto	10630	6.50	6.80	6.00	6.70
3.95	2.35	Do. warr.	7260	2.40	2.70	2.40	2.60
1.75	1.16	Prospectors	16300	1.66	1.73	1.47	1.64

Range 1957 High	Low	Company & Dividend ($)	Sales	Last June 7	Week Ending June 14 High	Low	Close
.18	.10	Purdex	29000	.13	.13	.10	.12
.55	.45	Quatsino	8050	.30	.32	.40	.51
.32	.25½	Que. Ascot	2848	.27	.28	†.20	.28
2.34	1.01	Que. Chib.*	36300	1.19	1.20	1.03	1.15
1.25	.60	Que. Cop.	11400	.66	.78	.65	.76
.28	.11	Que. Lab.	23700	.13½	.13	.12	.12½
10.00	3.00	Que. Lith.	5771	8.50	8.85	8.25	8.25
.80	.28	Que. Man.	4100	.40	.45	.29	.45
2.45	1.79	Que. Met.	23155	2.05	2.05	2.00	2.05
.77	.37	Que. Smelt.	32200	.40	.45	.38	.41
.26	.17	Queenston C.	8000	1.15	.20	.19	.19
13.00	12.00	Quemont $.70	3463	13.50	13.75	13.00	13.75
		R					
1.49	.90	Radiore	18250	1.00	1.00	.90	.90
1.25	.70	Rainville	3333	1.19	1.17	1.06	1.12
1.05	.55	Rare Earth	17000	.60	.60	.60	.60
1.90	1.25	Rayrock	22700	1.58	1.62	1.52	1.59
.03½	.01	Red Cloud	5000	.02	.02	.02	.02
.19	.07	Red Crest	38000	.08	.10	.09	.10
.07½	.03	Red Hawk	8000	.04½	.03½	.03	.03
		Reeves McD.					
2.15	1.45	$.12½	400	1.45	1.50	1.45	1.50
2.05	1.25	Renabie	1200	1.27	1.45	1.45	1.45
1.00	.37	Rexspar	33550	.68	.72	.66	.68
.05	.02	Rice Lake	500	.04½	.03½	.03½	.03½
.23	.12	Rio Rup.	20000	.15	.15	.14½	.14½
.75	.50	Rix A'basca	5700	.63	.63	.58	.58
.25	.18	Roche L.L.	15000	.20	.27	.19	.23
1.82	1.21	Rockwin	290773	1.40	1.48	1.23	1.40
.15	.09	Rowan Con.	45800	.13½	.14	.13	.14
.17	.11	Ryanor	2500	.12½	.11½	.11½	.11½
		S					
.40	.20	St. Michaels	14350	.28	.28	.20	.25
.68	.45	San Antonio	5500	.55	.58	.52	.55
.70	.13	Sand River	1082790	.50	.50	.43	.46
....	....	Scotia Gold	nil	..	B.00½	A.01	.01½
1.35	.65	Sheep Cr. *.05	4200	.70	.70	.65	.70
8.15	5.90	Sherritt G.	32802	6.05	6.15	5.90	6.05
4.55	4.00	Sigma M. .40	1000	4.10	4.50	4.00	4.45
.18½	.09	Silanco	49000	.15½	.17	.14	.14½
.20	.09	Silbak Prem.	7000	.11	.10	.09	.10
1.05	.65	Silver M. *.03	2510	.69	.69	.67	.67
.10	.05	Silver R.	nil	..	B.06	....	.08
.63	.35½	Silver Stand.	27500	.35½	.50	.44	.49½
1.03	.66	Siscoe $.03½	7925	.88	.88	.85	.85
.16	.07	Skeena	14900	.10	.12	.09	.12
.15	.09½	Slocan Duv.	5500	.10	.10	.09½	.10
.09	.05½	Soma Duv.	5000	.06½	.07	.06½	.07
.12	.06	South-Duf.	1000	.06	.07	.07	.07
.15	.06	Spud Valley	10000	.06½	.07	.06	.06
.42	.27	Stad'n '44 *.02	23715	.35	.38	.35	.38
.23	.13	Standard G.	2500	.15	.15	.15	.15
6.40	3.15	Stanleigh	17627	4.95	5.10	4.80	5.00
5.00	3.30	Do. warr.	6210	3.55	3.75	3.40	3.70
5.05	3.50	Stanrock	3040	3.95	3.90	3.60	3.60
.00¾	.00½	Star Lake	nil	..	B.00½	A.01¼	.00¾
.60	.20½	Star Uran.	9700	.55	.60	.50	.60
.34	.10	Starrat O.	104640	.26	.27	.25	.25
.11	.07½	Steeloy	3600	.08	.08½	.08	.08
23.12½	17.75	Steep Rock	3180	21.75	22.00	20.37½	21.37½
.50	.30	Sturgeon R.	67850	.41	.42	.37	.39
.15	.09½	Sudbury G.	8500	.11	.11½	.11	.11
4.10	2.75	Sullivan *.06	6915	3.10	3.15	3.00	3.00
.45	.35	Sunburst	10750	.40	.45	.40	.40
.26	.14½	Sunshine *.05	8500	.16	.17	.16	.17
.09½	.06½	Surf Inlet	4500	.07	.07	.06½	.06½
1.75	1.10	Sylvanite .08	80800	1.69	1.75	1.60	1.62
		T					
.37	.22	Tache Lk.	191200	.26	.33	.25	.31
.16	.09	Tandem	202832	.09	.16	.10	.14
.30	.10	Tarbell	4500	.10	.12	.10	.12
.55	.35	Taurcanis	4000	.50	.52	.48	.49
.19	.10½	Taylor B.	nil	..	B.10	A.14	.11
.65	.10	Tazin	260100	.55	.65	.52	.63
		Teck-Hughes					
2.69	1.55	$.05	245608	1.95	2.69	2.00	2.24
4.90	3.00	Temagami	7700	3.00	3.45	3.10	3.30
1.24	.80	Thompson	10100	.90	.90	.82	.83
.36	.16	Tiara	611058	.20	.28	.17½	.23½
.60	.21	Tib Explor.	20600	.27	.27	.25	.25
.88	.19	Torbill	31600	.39	.63	.55	.60
.47	.34	Torbrit S.	1000	.34	.36	.36	.36
.23	.12	Towagmac	1500	.12½	.12½	.12½	.12½
3.25	1.20	Tr. Can. Ex.	10683	2.51	2.55	2.36	2.40
.34	.22	Trans. Res.	7000	.24½	.25	.22	.25
.33	.15	Trebor	23500	.25	.28	.20	.24½
.55	.28	Tribag	5600	.38	.50	.49½	.50
.33	.20	Trinity	13000	.24	.26	.22	.24
.43	.36	Trojan Con.	17091	.38	.40	†.24	.38
.38	.15	Trojan Ex.	1000	.22	.27	.27	.27
		U					
.91	.25	Ultra Shaw.	230154	.84	.91	.74	.90
.24	.18	Union Min.	1700	.19½	.20	.20	.20
7.15	5.50	United Asb.	3200	6.55	6.80	6.55	6.70
.20	.12½	Un. Estella	16400	.16	.16	.13	.13
		United Keno.					
6.40	4.50	$.30+.10	2275	4.70	4.70	4.50	4.50
.17	.11	Un'd Mont.	5000	.15	.13	.12	.12
.85	.65	Upper Can. $.02	8600	.68	.69	.65	.69
.03½	.01½	Utica	5000	.03	.02½	.02½	.02½
		V, W					
.22	.14	Valor	4500	.16	.16½	.15	.15
.05	.03	Van'da '48	18500	.03½	.03½	.03	.03½
44.50	32.75	Ventures $.25	27626	42.62½	44.50	40.75	44.12½
1.60	1.00	Do. rts.	228190	1.25	1.65	1.15	1.60
.29	.18	Vico	223100	.19½	.21	.18	.20
2.00	1.30	ViolaMac	14000	1.67	1.70	1.60	1.68
2.35	.70	Virginia	12200	.75	.75	.70	.73
13.75	7.50	Waite A. $.60	3256	7.75	8.00	7.75	7.80
.54	.35	Weedon Pyr.	10450	.37	.41½	.37	.38
.08	.05	Wendell	7500	.05	.05	.05	.05
.35	.20	Werner Lk.	8000	.30	.27	.25	.25½
.50	.35	West Ex.	500	.45	.40	.40	.40
.17	.09½	West Mal.	23500	.14	.14½	.12	.13
.85	.35	West. Min.	750	.45	.35	.35	.35
.27	.12	Westville	39000	.15	.15	.12	.14
2.90	1.70	Willroy	13000	1.75	1.85	1.70	1.75
1.84	1.00	Do. warr.	900	1.05	1.05	1.00	1.00
.24	.10	Wiltsey C.	297400	.24	.24	.18	.22
.11	.07½	Winchester	8500	.08½	.09	.08½	.09
.25	.10	Windw'd	212050	.10½	.12	.10	.10½
.05¼	.02	Wpg. R. Tin	1000	.05	.04¼	.04¼	.04¼
1.30	.75	Woodgreen	35200	1.03	1.02	.95	1.00
1.60	1.15	Wright-H. $.06	8903	1.35	1.40	1.30	1.30
		Y, Z					
.37	.20	Yale Ld.	11400	.23	.25	.20	.25
.13	.08½	Yellorex	2000	.09	.09	.08½	.09
1.93	1.35	Y'ke Bear *.06	13345	1.53	1.61	1.50	1.58
.10½	.06	Yukeno	5033	.07½	.08	.08	.08
.89	.54	Yukon C. *.06	11800	.80	.80	.68	.70
.40	.23	Zenmac	39500	.31	.33	.29	.33
.75	.33	Zulapa	1625	.45	.45	.40	.45

Oil Stocks

Range 1957 High	Low	Company & Dividend ($)	Sales	Last June 7	Week Ending June 14 High	Low	Close
.23	.17½	Acme *.01	2100	.18	.18	.18	.18
.88	.61	Ajax	4000	.77	.77	.75	.75
.10	.04	Albedina	9500	.06½	.07	.05½	.07
.50	.35½	Alta. P. Con.	16852	.47	.48	.43	.44
.20	.04½	Aldina	2000	.10	.10	.10	.10
.35	.18	Altex	5000	.24	.37	.24	.24
.06	.03	Amalta	1000	.03½	.06	.06	.06
.70	.32	Amer. Leduc	58483	.35	.37	.33	.33
6.25	4.80	Amurex	nil	..	B6.30	A6.60	6.25
4.75	2.80	Anaconda	2135	3.75	3.70	3.20	3.30
.28	.12	Anchor	35500	.20	.21	.18	.19
16.87½	13.75	Anglo-Am.	900	15.00	14.87½	14.50	14.50
.14	.07	Apex	21900	.08	.08½	.07	.08
		B					
20.75	15.75	Bailey-Sel. A	6025	17.37½	17.75	16.37½	16.50
41.00	32.00	Do. 5% pf. 1.25	1125	35.00	34.75	32.00	33.00
3.30	2.40	Banff	9805	3.05	3.10	2.80	2.87
.15	.05	Barons	17300	.07	.07	.06	.07
.54	.37	Basco	45750	.52	.54	.50	.54
.15½	.10	Bashaw	500	.11	.11	.11	.11
.12	.08	Bata	5000	.10½	.11	.10½	.10½
.25¼	.14	Blue Crown	7966	.17	.19	.16	.19
.36	.24	Bonnyville	13168	.34	.36	.31	.35
.99	.70	Bralsaman	500	.85	.99	.99	.99
3.60	2.60	Britalta	41575	3.35	3.60	3.00	3.25
		C					
3.20	1.40	Cabanga	90550	2.90	2.95	2.80	2.88
1.55	1.25	Calalta	19775	1.33	1.35	1.30	1.33
33.50	24.00	Calg. & Ed. .10	3760	32.50	33.25	31.75	32.62½
5.50	4.50	Calvan	240	5.45	5.40	5.40	5.40
		Canada					
4.50	3.20	Canada Oil L.	5420	3.85	3.90	3.75	3.80
2.85	1.75	Do. warr.	2725	2.50	2.78	2.40	2.50
		Canadian					
.60	.40	Canadian Ad.	46198	.58	.60	.52	.57
10.12½	5.90	Cdn. Atl'tic.	24678	9.50	9.50	8.60	8.90
.79	.53	Cdn. Br. E.	8050	.65	.68	.65	.65
3.00	1.30	Cdn. Chieft'n	17640	2.65	2.65	2.50	2.65
		Cdn. Dec.					
1.70	.80	warr.	13300	1.17	1.35	1.18	1.25
9.40	6.50	Cdn. Dev.	52313	9.00	9.10	8.75	9.05
.08	.04	Cdn. Emjay	4100	.04¼	.05	.04¼	.05
8.60	5.10	Cdn. Ex. G.	10762	7.95	8.00	7.60	7.80
.27	.14	Cdn. F'tune	14,350	.19	.20	.16	.19
1.35	1.00	Cdn. High Cr.	6650	1.15	1.20	1.18	1.20

Range 1957 High	Low	Company & Dividend ($)	Sales	Last June 7	Week Ending June 14 High	Low	Close
2.86	1.75	Cdn. H'stead	17256	2.75	2.75	2.60	2.65
22.75	12.25	Cdn. Husky	3855	22.00	21.50	20.00	20.50
16.25	7.50	Do. warr.	1490	15.87½	15.50	13.75	13.75
5.00	2.65	Cdn. Prosp.	3750	4.25	4.25	4.00	4.00
3.25	2.30	Cdn. Wil'ston	nil	..	....	A2.95	2.50
.85	.50	Canadusa	2250	.55	.50	.50	.50
2.01	1.30	Canso Gas	7031	1.92	2.01	1.85	1.90
8.25	5.00	Canso Pet.	5971	8.05	8.00	6.90	7.25
3.36	1.84	Canso Prod.	4963	2.70	2.90	2.40	2.45
2.40	.25	Canso Warr.	10600	2.70	2.40	2.75	2.40
.70	.55	Carleton	nil	..	....	A.90	.63
.25	.12	Castle O.	3125	.17½	.18	.15	.17
9.85	8.40	Cent. Del Rio	43632	9.00	9.85	9.30	9.25
5.00	3.35	Cent. Explor.	700	4.20	4.15	4.15	4.15
.28	.15	Century	3000	.17	.16½	.15	.15½
4.30	2.27	Charter	29575	4.05	4.30	3.85	4.10
.21	.14	Claybar	2000	.16½	.15½	.14	.15½
1.70	1.70	Coastal	nil	..	B.70	....	1.70
1.05	.90	Command *.80	100	.95	.95	.95	.95
2.25	2.00	Commoil $.10	100	2.00	2.00	2.00	2.00
4.35	2.65	Common P.	300	3.75	3.90	3.75	3.90
.16	.10	Con. Allen.	16100	.13	.14	.12½	.14
.26	.18	C. Cord.	4000	.20	.20	.20	.20
.90	.45	Con. Dragon	20133	.54	.55	.48	.51
.64	.30	C. East. C.	3016	.35	.35	.35	.35
.20	.04	Con. Gr. C.	13332	.07	.10	.07	.10
5.30	4.30	C. Mic Mac	31253	4.95	5.10	4.90	5.10
.17	.09	C. Peak	8575	.10½	.12	.10½	.11½
12.00	9.20	C. W. Pet.	6945	12.37½	12.87½	12.25	12.25
5.60	4.25	Cree Oil	12230	5.30	5.60	5.30	5.30
3.25	1.90	Do. warr.	20626	3.00	3.15	2.85	2.95
		D, E, F					
.50	.20	Dalhousie	15737	.25	.32	.25	.32
2.83	1.42	Dev. Palmer	47844	2.42	2.66	2.40	2.58
13.75	9.25	Dome	5540	12.75	13.00	11.75	12.00
.15	.09	Dom. Min'ls	35000	.10½	.12	.09½	.09½
.30	.04	Dubar	7000	.04	.04½	.04	.04½
.36	.16	East Cdn.	2000	.22	.22	.21	.22
.18	.07	Edoran	5100	.11	.11	.10	.10½
.24½	.15	Emp. Oil	61500	.19	.18½	.16	.17
8.30	2.93	Fargo	28010	6.65	8.30	6.50	7.50
9.40	2.65	Ft. St. John	13915	8.95	9.40	8.50	9.25
.06¾	.02¼	Freehold	10500	.04	.04½	.04	.04½
.82	.38	Futurity	134225	.74	.82	.70	.80
		G, H					
.30	.11	Gaspe	3000	.17	.18	.15½	.17
.11	.05½	Gateway	3000	.06	.07	.06½	.06½
6.25	4.90	Gen. Pet. .20	1100	5.40	5.90	5.50	5.60
6.00	4.80	Do. A	6625	5.40	5.75	5.40	5.40
.38	.18	Golden Sat.	1500	.24	.26	.24	.26
.12	.05	Golden Sp.	7000	.10	.09½	.07	.07½
47.00	38.00	Gt. Plains	2345	45.50	44.25	42.00	42.50
12.12½	9.60	Gridoil	600	11.50	10.87½	10.50	10.50
.09	.03	Hargal	33100	.08	.08	.07	.08
.16	.08½	Henderson	1000	.12	.13½	.13½	.13½
.37	.26	High Sarcee	13050	.34	.35	.32	.32
		Hi-Tower					
11.50	8.37½	$.30+.30	847	10.25	10.50	10.25	10.50
23.75	11.25	Home A .25	12202	19.25	20.75	19.00	20.00
23.50	10.50	Do. B	6709	19.00	20.50	18.75	19.50
2.20	1.90	Humber	21250	1.94	1.99	1.90	1.95
		I, J, K, L					
.75	.32	Israel Cont.	11200	.35	.75	.48	.48
.65	.26	Jump. Pound	65900	.55	.59	.52	.59
2.60	1.68	Jupiter	27300	2.27	2.32	2.22	2.30
.20	.11	Kenare	18800	.14	.14	.12	.12½
.25½	.14	Keno	5000	.15	.16½	.14	.15
.09½	.07	Leamac	29470	.08½	.08¾	.07½	.08
.19	.12	Leduc Cal.	6950	.16¾	.17	.15	.15¼
2.85	2.20	Liberal	13615	2.28	2.30	2.24	2.26
1.05	.40	Lloydminster	500	.50½	.51	.51	.51
.20	.11	Long Is. P.	185100	.14	.19	.14	.18½
		M, N					
.36½	.20	Marigold	10200	.21	.26	.21	.25
.04	.01½	Marvel	nil	..	B.02½	A.03½	.02½
5.05	3.15	Medallion	35581	4.80	4.80	4.65	4.80
.95	.47	Merland	28000	.82	.84	.79	.79
17.62½	13.00	Merrill Pet.	18255	16.75	17.62½	15.25	17.62½
1.73	.88	Midcon	1095745	1.55	1.73	1.34	1.47
.40	.25	Mill City	10120	.28	.29	†.23	.29
1.55	.82	Mill Creek	4425	1.05	1.10	1.01	1.01
1.82	1.25	Mollusca	100	1.50	1.45	1.45	1.45
.17	.08	Monarch	5500	.09¼	.09	.08½	.09
5.05	3.35	Nat. Pet.	1000	4.10	4.05	3.90	3.95
1.00	.50	N. Bristol	59953	.50	1.00	.50	.90
3.10	1.78	N. British	77842	2.75	3.10	2.55	3.10
2.60	1.85	N. Chamb'n	23500	2.35	2.39	2.25	2.35
.40	.22½	N. Concord	4875	.31	.40	.30	.40
.70	.54	N. Cont.	26200	.61	.64	.55	.55
.30	.19	N. Davies	14000	.28	.30	.28	.28
2.25	1.35	N. Gas Expl.	55894	2.18	2.25	1.90	2.18
.08¾	.06	N. Ranch.	10100	.06¼	.06½	.06½	.06¼
.16	.08¼	N. Richfield	8875	.11¾	.12	.10	.10
.17	.09	N. Spring.	16500	.10	.11	.09	.09
2.65	1.85	N. Superior	12866	2.40	2.50	2.35	2.45
.70	.15	Nordon	2000	.60	.65	.65	.65
.85	.40	Northcal	93325	.55	.69	.56	.63
5.90	4.80	North Can.	28000	5.25	5.65	5.15	5.60
39.00	36.50	Do. 5½% pf.	20	136.00	136.00	136.00	136.00
3.50	2.45	Do. warr.	3000	3.05	3.20	2.90	3.00
.04	.02	N. Cont.	21000	.02½	.02¼	.02¼	.02½
.84	.48	Northland	4600	.65	.70	.60	.70
.54	.30	Nuco	15050	.35	.37½	.33	.36
		O, P					
.20	.11	Oil Select.	112435	.13	.13	.11	.11
2.90	2.30	Okalta	24930	2.83	2.85	2.71	2.80
34.75	16.12½	Pac. Pete.	67546	30.87½	32.50	28.25	31.37½
....	....	Pan Israel	nil	..	....	....	2.65
.71	.21	Pan West	268160	.51	.71	.46	.64
6.00	4.65	Parker Dr. $.25	390	4.75	5.00	4.95	5.00
17.00	9.00	Peace River	21112	16.25	16.37½	14.75	15.87½
3.90	2.30	Permo pf.	27130	3.63	3.75	3.50	3.55
2.25	1.20	Peruvian	6100	2.02	2.03	1.80	1.90
1.50	.94	Petrol	61700	1.01	1.05	.94	.97
1.85	1.40	Phillips	16810	1.60	1.59	1.50	1.52
.77	.55	Ponder	11400	.65	.65	.62	.65
5.90	3.95	Prairie	300	4.45	4.50	4.45	4.50
3.75	1.70	Provo	35240	3.50	3.55	3.25	3.50
		Q, R					
.20	.06	Que. Oil Dev.	28000	.11½	.16	.13	.13½
.47	.25	Quinalta	66520	.45	.47	.44	.45½
.06	.03	Realty	27400	.03½	.04	.03	.03½
.23	.11	Reef Explor.	20750	.12	.12	.11	.11
.07½	.04	Renfrew	2000	.06	.05½	.05½	.05½
2.10	1.26	Richwell	15843	1.82	2.10	1.80	2.10
.11	.03½	Ridgeway	59000	.06	.06	.04½	.06
1.00	.50	Rocky Pet.	94498	.85	.94	.71	.73
.25	.09	Roxana	49750	.21	.21	.19	.20
1.00	.60	Royal C. Vent.	16960	.87	.85	.70	.85
23.25	16.00	Royalite .26	18754	21.75	23.12½	19.50	22.37½
		Do. 5¼% pf.					
38.25	27.00	1.31¼	1295	38.00	38.25	36.00	38.00
		S					
.99	.08½	Sage	55850	.77	.98	.75	.90
1.82	1.27	Sapphire	128100	1.53	1.71	1.48	1.65
80.00	60.00	Do. 5% debs.	450	62.00	66.00	64.50	65.00
.70	.40	Sastex	nil	..	....	A.45	.45
3.95	2.50	Scurry Rainb.	72829	2.80	2.85	3.45	3.75
5.50	3.60	Security	11425	5.10	5.15	4.75	4.90
.25	.10½	Select Oils	3500	.10½	.12	.10½	.10½
.16	.06	Share Oils	11800	.13	.14	.11	.13
.19	.09½	Silver City	500	.13	.13	.13	.13
.30	.16	Souris Val.	500	.28	.26	.26	.26
.70	.50	So. West Pete.	nil	..	B.41	....	.67
.60	.34	So. Union	4000	.44½	.37	.35	.37
.30	.17	Sparmac	7800	.25	.25	.22	.22½
.78	.21	Spooner	366245	.70	.73	.61	.68
1.50	.60	Stanwell	201857	1.45	1.50	1.32	1.47
.16	.10	Sturgeon	nil	..	B.11½	A.13	.11½
		T, U, V					
.98	.50	Texas Cal.	70950	.80	.83	.72	.78
8.25	2.50	Titan	nil	..	B4.55	A7.00	2.50
3.35	2.00	Trans Emp.	4096	3.25	3.25	3.05	3.20
.70	.18	Do. rts.	105402	.44	.45	.36	.38
.07	.03½	Transfield	4000	.05½	.05½	.05	.05
9.00	7.25	Triad	21475	7.60	7.70	7.25	7.35
.13¾	.09½	Tri-Zone	500	.10	.09½	.09½	.09½
.40	.31	Turner V.	25	.37	.37	.37	.37
4.40	1.73	United Oils	157320	3.30	3.55	3.10	3.55
.38	.25	Vanalta	3100	.28	.27	.26	.27
.23	.10	Vandoo	51200	.13	.13	.12	.12
2.79	1.30	Van Tor	55344	2.73	2.70	2.50	2.52
.80	.50	Vulcan	7700	.70	.80	.71	.73
		W, Y					
.81	.22	Wayne	6900	.23	.24	.23	.24
.53	.16½	Wespac	239063	.44	.51	.37	.40
1.05	.90	W'burne	32800	1.02	1.05	1.00	1.05
3.00	1.85	W. Decalta	20592	2.54	2.70	2.55	2.65
1.35	.46	Do. B warr.	7000	1.07	1.07	1.01	1.05
		W. L'holds					
6.50	5.00	$.12½	900	5.75	6.05	6.00	6.00
1.98	1.12	W. Maygill	30200	1.90	1.95	1.75	1.93
3.90	1.00	W. Naco	9400	2.16	2.25	2.10	2.10
.12	.08½	W. Warner	nil	..	B.08	A.09½	.09¾
.16	.09½	Y'ke Can.	19500	.09½	.11	.10	.10
.09	.06	York Oils	4500	.07	.07½	.07	.07

*1 sh. Chib. Asb. for 10 shs. Que. Chib. •U. S. funds. **Initial. †Less than board lot. ‡When sales shown nil the figures are bid, asked and latest sale. *Paid in 1956. §Payable in 1957 to date. **1 sh. El Sol G.M. for ea. 10 shs. held. ‡Extra paid in 1956.

Consumers' Gas Plans Financing

Consumers' Gas Co. of Toronto proposes to issue $5 million preferred stock in July. Shareholders will be asked to approve this at a special meeting in Toronto on June 18.

They will also be asked to approve creation of additional amounts of authorized preferred stock up to $25 million, which may be issued from time to time if and when required.

Consumers' is considering a small issue of first mortgage bonds later this year, said Vice-president Oakah Jones, as indenture will not permit further debentures at present.

All this should put company in a better position for common stock financing at a later date to attain capital ratio percentage desired, it says.

For the years 1957-62, company estimates construction requirements will amount to $75 million. Permanent financing will be required for a considerable portion of this.

Advances and Declines

Week Ended	Toronto Ups	Downs	No Change	Montreal Ups	Downs	No Change
May 10	242	417	175	136	194	136
May 17	335	362	190	134	170	119
May 24	280	286	176	136	154	117
May 31	295	377	176	128	183	114
June 7	325	370	178	124	147	142
June 14	320	352	159	140	140	121

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Telephone: Empire 8-4731
Branch Office 73 BROCK ST — KINGSTON, ONTARIO

Company Report

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Pipelines

TRANS-PRAIRIE PIPELINES LTD., Winnipeg, net profit of $293,829 for 1956 was 34.4% higher than 1955's $217,072.

Oil transmitted in Manitoba in 1956 increased by 1,689,908 bbls. over previous year, to 5,750,515 bbls., an average of 15,755 b/d. Estimated transmission for 1957 is 18,485 b/d. In Saskatchewan, estimate is 5,000 b/d for 1957, says President D. R. Brandt.

Company last year added 24.58 miles of line to system for a total of 91.33 miles, increased average transmission by 4,630 b/d, and reduced tariff of Virden-Roselea and North Virden-Roselea fields. This reduction effected savings for producers of $67,000 for last half of 1956.

An additional five miles of gathering system has been put into operation since year-end. Further capital expenditures for installation of 30 miles of pipe line in Saskatchewan and 16 miles in Manitoba are estimated at $750,000 for 1957.

First mortgage 5% s.f. bonds due Dec. 31, 1965, totaling $700,000, were sold privately in May, 1956.

Capital construction cost for 1956 in Saskatchewan amounted to $680,193 and when completed in 1960 cost will be approximately $1.6 million.

Fixed assets increased by $940,334 to $2,235,888.

Increase in refinery capacity in eastern Canada, and extension of **Interprovincial Pipe Line** to Toronto, assures continuing markets for Saskatchewan and Manitoba crude oil, says Mr. Brandt.

INCOME ACCOUNT

Years Ended Dec. 31:	1956	1955
Net earnings	$571,835	$367,708
Less: Deprec.	192,254	99,636
Income taxes	85,752	51,000
Net profit	293,829	217,072
Less: Pref. divds.	24,682	42,000
Surplus for year	269,147	175,072
Earnings per Share and Dividend Record:		
Preferred	....	$1.58
Paid	$0.30	0.30
Common	1.13	0.92
None paid.		

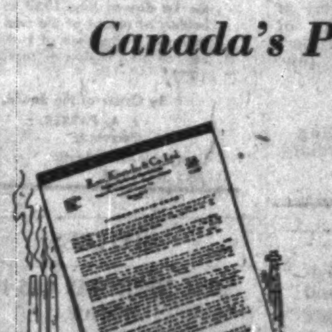
*All preferred stock redeemed in Apr., 1956.

Shares o/s at Dec. 31:		
6% Pref., 35 par v.	....	140,000
Common, n.p.v.	237,507	190,906

CONDENSED BALANCE SHEET

As at Dec. 31:	1956	1955
Accts. rec.	$58,908	$61,187
Inventories	120,624	73,578
Total curr. assets	179,532	134,765
Prep. exp.‡	4,961	999
Deferred expense	9,671	47,171
Fixed assets†	1,926,889	1,178,809
Total assets	2,121,053	1,361,744
Due bank	26,338	124,273
Accts. pay.	455,520	132,509
Tax provision	67,326	51,000
Total curr. liabs.	549,184	307,782
Defer. liab.	17,476	18,972
Funded debt	700,000	....
Capital stock	442,763	840,606
Earned surplus	405,630	194,984
†After deprec. of	308,960	118,319
‡Incl. in current assets in co.'s report.		
Excess of curr. liabs. over curr. assets	369,652	173,017

Canada's Power Resources . . .



Outstanding among Canada's basic industries is the production of electric power. So rapidly is the demand for power growing, that it is estimated present generating capacity will have to be doubled in the next ten years to meet this country's energy requirements.

Our Monthly Bulletin for June discusses Canada's power resources, and contains reviews of two major hydro-electric producers. This Bulletin is now available and will, we believe, be of timely interest to investors.

A complimentary copy will be forwarded upon request.

Please send me your June Bulletin.
NAME
ADDRESS

Ross, Knowles & Co. Ltd.
25 ADELAIDE STREET WEST, TORONTO
Hamilton Brantford Windsor Sarnia
Sudbury Niagara Falls Brampton

DIVIDEND NOTICES

THE CANADIAN BANK OF COMMERCE

DIVIDEND NO. 282

NOTICE is hereby given that a dividend at the rate of thirty-five cents per fully-paid share on the outstanding Capital Stock of this Bank has been declared for the quarter ending July 31, 1957, payable at the Bank and its branches on August 1, 1957, to shareholders of record at the close of business on June 29, 1957.

Subscribers to new shares are reminded that they will rank for this dividend only in the proportion that the amount paid upon such new shares at the record date of June 29, 1957, bears to the subscription price of $30.

By Order of the Board.
J. P. R. WADSWORTH,
General Manager.
Toronto, May 31, 1957.

PIONEER GOLD MINES LIMITED (N.P.L.)

Notice is hereby given that the Directors of Pioneer Gold Mines of B. C. Limited (N.P.L.) today declared interim dividend of twelve and one-half cents payable on August 1st, 1957, to shareholders of record July 15th, 1957.

By Order of the Board.
P. STEVENSON,
Secretary-Treasurer.
Dated June 12, 1957.

ANGLO-CANADIAN TELEPHONE COMPANY

Class A Dividend Notice

NOTICE is hereby given that a dividend of One and One-half percent (1½%) has been declared on the Class A Stock of the Company, payable September 3, 1957, to Stockholders of record at the close of business on August 9, 1957.

By Order of the Board,
CAMERON HOUGH,
Secretary.
Montreal, P.Q., June 4, 1957.

ANGLO-CANADIAN TELEPHONE COMPANY

Preferred Dividend Notice

NOTICE is hereby given that a dividend of One and One-Eighth percent (1⅛%) has been declared on the 4½% Cumulative Preferred Stock of the Company for the quarter ending July 31, 1957, payable August 1, 1957, to Stockholders of record at the close of business on July 10, 1957.

By Order of the Board,
CAMERON HOUGH,
Secretary.
Montreal, P.Q., June 4, 1957.

ATLAS STEELS LIMITED

Notice is hereby given that a dividend of twenty-five cents (25c) per share on the Common No Par Value Shares of the Company has been declared and the same will be payable on the first day of August, 1957, to shareholders of record at the close of business on the third day of July, 1957.

By Order of the Board.
A. G. HOWEY,
Secretary.
Dated at Welland, Ontario,
June 14, 1957.

GENERAL PRODUCTS MFG. CORPORATION LIMITED

Dividend Notice

Notice is hereby given that a stock dividend at the rate of one share of 3% non-cumulative redeemable Second Preference Stock having a par value of $1.00 per share for each Class "A" and/or Class "B" share of the Company has been declared payable July 15, 1957, to the holders of Class "A" and Class "B" shares of the Company on record at the close of business, June 28, 1957.

By Order of the Board.
D. G. WALLACE,
Secretary-Treasurer.
London, Ontario,
June 13, 1957.

N. SLATER COMPANY LIMITED HAMILTON-CANADA

DIVIDEND

NOTICE IS HEREBY GIVEN that a dividend of .53c per share has been declared on the outstanding Preferred Stock of the Company, payable July 15th, 1957, to shareholders of record at the close of business on June 28th, 1957.

NOTICE IS HEREBY GIVEN, ALSO, that a quarterly dividend of .25c per share has been declared on the outstanding Common Shares of the Company, payable August 1st, 1957, to shareholders of record at the close of business on July 11th, 1957.

By Order of the Board.
E. GARSIDE,
Secretary.

CANADIAN PACIFIC RAILWAY COMPANY

DIVIDEND NOTICE

At a meeting of the Board of Directors held today a dividend of seventy-five cents per share on the Ordinary Capital Stock was declared in respect of the year 1957 payable in Canadian funds on August 1, 1957, to shareholders of record at 3.30 p.m. on June 21, 1957.

By order of the Board.
T. F. TURNER,
Secretary.
Montreal, June 10, 1957.

DIVIDEND NOTICES

THE BANK OF NOVA SCOTIA

DIVIDEND No. 351

Notice is hereby given that a Dividend of fifty cents per share on the paid-up Capital Stock of this Bank has been declared for the current quarter to shareholders of record of June 29th, 1957 and that the same will be payable on and after Thursday, the first day of August 1957, at any of the offices of the Bank in Canada.

By order of the Board
F. W. NICKS,
General Manager.
Halifax, N.S., June 11th, 1957.

Commonwealth International Corporation Limited

Dividend No. 94

Notice is hereby given that a dividend of FIVE CENTS per share has been declared on the outstanding Common Shares of the Capital Stock of the Company, payable on 15th JULY 1957, to shareholders of record at the close of business on 28th JUNE 1957.

Holders of Bearer Share Warrants may present Coupon No. 94 for payment to any branch in Canada of The Royal Bank of Canada, on and after 15th JULY 1957.

By Order of the Board.
W. Lewis Alexander
Secretary-Treasurer
Montreal, 6th JUNE, 1957.

TRANS-CANADA CORPORATION FUND

DIVIDEND NOTICE

Notice is hereby given by the Directors of Trans-Canada Corporation Fund-Corporation de Valeurs Trans-Canada, that, for the quarter ending June 30th, 1957, the following dividends have been declared:

Dividend number 6: $0.22½ per share on the 4½% cumulative convertible preferred shares, Series "A," and $0.25 per share on the 5% cumulative preferred shares, Series "A":

These dividends will be payable on July 1st, 1957, to shareholders of record on June 15th, 1957, at the close of business.

By Order of the Board,
ANDRÉ CHARRON,
Secretary.
11/6/57-bv

UNIVERSAL COOLER COMPANY LIMITED

Fourth Regular Quarterly Dividend

Notice is hereby given that the Fourth regular quarterly dividend for the quarter ending June 30, 1957, of 1½% on the outstanding 6% Cumulative Redeemable Class A Preference Shares and of 12½c per share on the outstanding 50c Cumulative Convertible Class B Preference Shares of the Company has been declared payable July 1, 1957, to shareholders of record at the close of business on the 14th day of June, 1957.

By Order of the Board.
A. D. HALL,
Secretary-Treasurer.
Brantford, Ontario, May 15, 1957.

ARGUS CORPORATION LIMITED

NOTICE OF DIVIDENDS

Notice is hereby given that dividends of sixty cents (60c) per share on the outstanding $2.40 Cumulative Convertible Preference Shares Series A and sixty-two and one-half cents (62½c) per share on the outstanding $2.50 Cumulative Preference Shares Series B of the Company have been declared payable on the first day of August, 1957, to shareholders of record at the close of business on the fifteenth day of July, 1957.

Notice is also given that a dividend of twenty cents (20c) per share on the outstanding common shares of the Company has been declared payable on the second day of September, 1957, to shareholders of record at the close of business on the thirty-first day of July, 1957.

By Order of the Board,
H. H. EDMISON,
Secretary.
Toronto, Ontario,
June 11, 1957.

DOMINION GLASS COMPANY LIMITED

Notice is hereby given that a dividend of one and three-quarters percent (1¾%) has been declared on the PREFERRED STOCK of the Company for the quarter ending the 30th day of June 1957.

Notice is also hereby given that a dividend of Fifty Cents (50 Cents) per share has been declared on the COMMON STOCK of the Company for the quarter ending the 30th day of June 1957.

The above dividends will be paid on Monday, the 15th day of July 1957, to shareholders of record at the close of business Thursday, the 27th day of June 1957.

By Order of the Board.
T. B. King,
Secretary.
Montreal, 27th May, 1957.

dividend notice

Notice is hereby given that a Dividend at the rate of thirty-two and one-half cents per fully paid share in the Capital Stock of the Bank has been declared for the quarter ending July 31st, 1957, payable at the Head Office and Branches of the Bank on and after August 1st, 1957 to shareholders of record at the close of business of June 28th, 1957.

Subscribers to new shares are reminded that they will rank, for the purposes of this Dividend, in the proportion that the amount paid on such new shares on or before June 28th, 1957 bears to the subscription price of $32.00.

By Order of the Board
Toronto, Ontario, June 6, 1957
A. T. LAMBERT,
General Manager

THE TORONTO-DOMINION BANK
THE BANK THAT LOOKS AHEAD

Market Bid and Ask Quotations

Montreal & Toronto
June 18, 1957

	Bid	Asked		Bid	Asked
Abitibi	22	22¼	Ang-T Tel	44½	45
Do pr	23	23½	Ang Pul p	50	50½
Acad-Atl	7½	8	Anglo Hur	11½	11¾
Do A	18½	19	xA Rouyn	60	65
Do pr	88	90	Anthes Im	23½	24½
xAcad Ur	11½	12	xApex Res	7	7½
xAcme Ga	18	19	xArcadia	182	185
xAconic	11½	12	Do wts	71	74
Do vt	11¼	..	xArcan	21	30
Admiral	10¾	11	xArea	110	113
xAdvocat	120	125	Argus	16¼	16½
Agnew-S	7½	7½	Do 2.40p	46½	47
Do pr	8½	9	Do 2.50p	42	42½
xAjax	72	77	xArjon	13	14
xAkaitcho	30	34	Ashdow A	..	12¼
xAlba Ex	10	11	Do B	..	12
xAlta Dis	150	155	xAsh Te	325	340
Do vt	145	150	Do A	..	90
xAP Cons	40	46	Do B	8½	9
Algom	21¼	22	A Art Pr	10¼	10½
Do vt	..	22½	Do debs	106	109
Do deb	93½	94½	Do wts	12½	13
Do wts	12½	13	Atlas Acc	6	6¼
Algoma	151¼	152½	Do pr	14	14
Alumini	46½	46¾	Atlas Stl	26	26¼
Do 1 pr	20½	21	xAtlas Yk	10	11
Do 2 pr	44	44½	xAtlin-Ru	58	60
xAm-Lard	18	20	xAubelle	10	10½
xA Leduc	22	23	xAumacho	20	23
xA Nephe	130	140	xAumaque	11	12
xAmurex	600	640	xAunor	175	180
xAnacon	145	150	Auto Elec	14½	15
xA Con I	300	310	xAut F A	250	350
xAnchor	18	20	Do B	80	80
Anglo-A	13½	14½	xAvilla	8½	9½

	Bid	Asked
Bailey SA	16¼	16¾
Do pr	32½	33½
xBanff	276	280
xBankeno	28	34
xBankfield	9	10
Bk Mont	46½	47
Do rts	335	340
Bank-NS	59½	60
Banq Can	..	29½
Barb-Ellis	44½	..
xBarcelon	350	..
xBarnat	25½	29
xBarvue	43	55
xBary Ex	66	70
xBase Met	68	70
xBasika	36½	38
xBata	12	13
Ba Innes	8½	9
Bath P A	..	54
Do B	30	35
xB-Duq	90	99
Beatty	3½	6¼
xBeaucage	95	98
xBeav Lod	21	23
Beav Lbr	18½	18½
Do A	18½	20
Do pr	..	27
xBelcher	280	290
Bell Phon	41	41¼
xBell rts	97	98
xBellsterr	165	170
xBethlm	178	180
xBevcon	17	17½
xBibis	8½	9
xBicroft	205	210
Do wts	120	125
xBidcop	24	26
Biltmore	..	6¼
Do pr	12	12
xBlack Ba	75	84
Blue Rib	13	15
Do pr	25	27
xBonville	8	8½
xBordulac	14	14½
xBouscad	12	14
xBouzan	50	51
Bowat	5	5¼
Do pr	42	..
Do 5½% p	44½	45½
Bowes	14	15½
xBoymar	7	7½
xBralorne	410	450
xBralsa	83	95
Br Cord A	16	17½
Do B	10	10½
Brazil	9¼	9½
Do pr	94½	..
Br Tank p	46	47
Do wts	680	900
Bright	19	20
Do pr	20	21
xBrilund	68	69
xBritalta	315	325
BA Oil	55½	55½
BCE 4%p	77	78½
Do 4¼%p	40	40½
Do 4½%p	41½	41½
Do 4¾%p	..	89
Do 5% p	46½	47
BC Forest	12½	12¾
BC Pac A	16	16
Do B	16	16½
BC Pow	52½	52½
BC Phone	43½	44
xBroul Re	80	81
Bruck A	6½	6½
Do B	200	215
xBrnhrst	10	11
xBrunsman	8½	9
xBrunsw	825	840
xBuffad	9	10
xBuff An	102	108
xBuff Cdn	13½	14
xBuff RL	8	8½
Build Pro	32	33½
Bullochs A	6½	..
Do B	475	525
xBunk Hil	10½	11
xBurchell	60	61
Burlington	14	14½
Burns	10½	10¾
Burrard A	7	7
xCabang	275	280
xCalalta	127	130
Caldw 1 pr	21	23
Cal Ed	32½	32½
Cal Pow	78½	79½
Do 5 pr	88	98
xCalva C	510	540
xCamp C	10¼	10½
xCam RL	515	535
xC Bread	280	300
Do B	51	55
Can Cem	27½	28½
Do pr	26½	26½
CCC Stone	8	8
Can Foils	15½	16½
Do A	16	16
C Fndr A	24½	28
C Fndry	11	13½
Do A	24½	28
Cl Fndry	38½	39½
Do 4½%	108½	109
Can Life	155	156
C Machin	6½	10
Can Malt	49	50½
Do pr	22½	26
xC Oil L	365	380
Do wts	232	245
C Pack A	35½	36½
Do B	34½	35
Can Perm	82½	83½
C Saf 4p	88½	89
xCS O w	325	340
xCS Pete	720	730
CSL	45	46
Do pr	11¼	12
C Wire B	17½	17½
xC Ad Oil	51	59
xC Astoria	15	17
xC Atl O	865	870
Cdn Baks	450	475
C Bk Com	49¼	49½
Cdn Brew	25½	26
Do pr	27½	28
C Br Alum	17½	17½
xC Br Em	54	56
C Can A	13½	14
C Celan	15½	16
Do $1p	16¾	20
Do 1.75p	..	28½
C Chem	7½	8
xC Chieft	250	252
C Collierie	6	6½
Do pr	74	78
C Conv	350	400
Do B	400	..
xC Dec w	120	122
xC Dev	885	900
C Drawn	7½	8
Do pr	10	11½
C Dredge	20½	21½
xC Dyno	158	160
xC Ex Ga	800	810
C Fairbks	19½	20
Do pr	122	..
xCF Prod	325	350
Do A	8	8½
Do pr	45	45
CGE	500	1500
CG Sec A	18½	20½
Do B	20	25
C Hi Cres	110	120
xC Hmstd	255	260
C Husky	19½	20
Do wts	13½	13½
C Hyd Ca	13½	13½
C Ice Ma	6	7½
Do A	11	12
Cdn Loco	..	25½
xC Malart	28	29
xC N Inca	30½	34
Cdn Oil	34½	35½
Do pr	130	140
Do 4%	71	77
Do 5%	99	100
Do wts53	18½	19½
Do wt55	10½	10½
CPR	34½	34¾
C Pet pr	24½	25
xC Prosp	390	410
Cdn Salt	24	24½
xC Thor	9½	10
Cdn Tire	92	93
C Util pr	94	94½
Do 4½%p	..	90
C Vickers	30½	31½
C Wall A	11	12½
Do B	..	12½
CWN G p	15½	15½
xC Willist	255	..
xCanadusa	..	85
xCanam	27	30
xCandore	52	56
xC-Erin	64	65
xC-Met	390	395
Do wts	285	290
xCanso N	188	195
xCanso O	265	270
xCaptain	35	37
xCariboo	50	60
xCassiar	630	660
xCastle	450	490
xCayzor	630	640
C Can Inv	30	..
Do pr	100	..
xC Del Ri	900	910
xC Expl	435	440
xC Pat	210	215
xC Porc	10	11
xChart O	410	420
Chart Tr	53	54
Chatco pr	..	270
Chat-Gal	16½	18
xCheskirk	14	15
xChester	30	31
xChi Jac	220	221
xChi-Kay	32	33
xChib M	200	205
xChimo	126	129
xChrom	300	325
Chrysler	72	73½
xCirc Bar	250	300
Do A	480	600
xCobalt	43	45
xCoch W	107	109
Coch-D	21½	22
Do A	14½	15
Cockshutt	8½	8¾
xCody-Rec	67	68
Cogh C Lt	16½	17
xCoin L	13½	14
xColdstm	110	112
Collwood	13¼	..
xColomac	9½	11½
Comb Ent	12½	13
xCommoil	215	230
xC Pete	365	375
Conduits	9½	10½
Conf Life	115	130
xConiagas	188	193
xConiauru	38½	40
xCon-Key	20	24
xConro	14	16
xC Allenb	12½	14
Con Baks	6½	7
xC Belleke	26	27
xC Beta G	17	20
xC Callina	33	38

	Bid	Asked
xCon C Ca	10	11
xC Cordas	20	24
C Denison	19½	19¾
Do wts	11½	11½
xC Dfsco	274	275
xC Dragon	49	50
xC East C	54	55
xC Fen	175	180
Do B wt	30	44
Con Fire	5½	7
xC Gillies	10	11
xG Arro	30	31
xC Guay	19	20
xC Halliw	86	87
xC Howe	290	295
xC Marbe	54	55
xC Marcus	16	18½
xC Mi Ma	500	510
C M&S	22½	24
xC Morris	60	64
xC Mosher	53	60
xC Negus	24	26
xC Nichol	7	7
xC Norind	70	75
xC Peak	10½	11½
xC Persh	17	19
xC Pre A	325	415
Do B	150	250
xCons Que	80	100
xC Rd Pop	19½	21½
xC Regcrt	135	136
xC Sannor	11	14
xC Con Sud	20½	200
C Textile	350	..
xC Tungst	21	22
C West P	11½	12
Con Gas	39¾	40¼
C Glass	25½	26
xConwest	580	600
xCop Cla	450	475
xCop Cor	38	40
xCopcrest	41	42
xCop-Man	14	16
xCoprand	235	260
Corby vt	16½	16½
Do B	15½	15½
Cosmos	11½	12½
xCoulee	72	75
xCournor	10½	11
xCowich	127	150
xCraig B	260	270
xCree Oil	525	535
Do wts	280	290
xCrestaur	9½	10
xCrestbrk	..	295
Do pr	30	31½
Do wts	151	170
xCroinor	16	16½
Cr Cork	51	..
Cr Trust	19	20½
Cr Zell	51½	..
xCrowpat	24	26
Crow's N	250	260
xCusco	15	15½
xDaering	35	45
xDaine	9	10
xD'Aragon	25	27
Davis A	8	8½
Do B	..	250
xDe Cour	45	48
Do wts	9	10
xDeer Hor	19	22
xD'Eldona	13½	14
xDelnite	107	107
xDev-Pa	252	253
xDiadem	12½	13
Dist Seag	28½	28½
Dome Ex	12	12½
Dome	12½	13½
Dom Ang	440	..
Do pr	95	..
D Coal pr	7½	9
D Corset C	13½	14
D Dairies	7	8
Do pr	17	18
Dom Elect	7½	8½
Dom Fab	10	..
Do 2 pr	18½	..
D Fndry	32½	33
Do pr	96½	99
Dom Ins	166	..
D Magnes	14½	15½
Dom Scot	24½	27
Do pr	46	57
D Steel or	25½	25½
Dom Store	54½	54½
Dom Tar	11½	11½
Do pr	18½	18½
Dom Text	8½	9
Do pr	118	..
xD Wool	100	100
xDonalda	21	22
D Ropes B	14	14
xD and M	115	120
Donohu Br	12	12½
Dow Brew	30	30½
xDuvan	25	30
xDuvex	18	19
xE Amphi	12	13½
E Kootenay	7	10
xEast Mal	121	128
xE Sull	365	380
xE Asb	38	65
xE Met	26	29
xE Mln	315	320
East Steel	475	525
Easy Wash	..	9
Do pr	..	15
Econ Inv	40½	40½
Eddy	48	50
Do A	49½	49½
Ed Match	25½	25½
xElder	21	34
xEldrich	33	35
xElec (C)	98	..
Electrolux	10	11
xEl P-Rey	25	27
xEl Sol	31	32
Emp Life	60	63
Equit Life	45	45
Erie A	6	..
Do B	275	275
Estabks p	19	23
xEureka	61	63
xExcelsior	78	87
xExpl All	30	31
Falcon	36½	36½
Fam Play	17	17½
Fanny F	18	20
xFaraday	250	254
Do wts	150	156
xFargo	715	730
xF'w Tun	25	32
Fed Grain	25½	27½
Do pr	25½	27½
xFed Kirk	15½	16
xFibre	350	400
Do pr	..	350
Fittings	5	7½
Do A	8	9½
Flash F p	15	..
xFleet Mf	76	80
xFla Can	780	790
Ford US	52	53
Do A	104	104½
Do B	108½	..
Foundat	21½	22
Do rts	95	100
xFrancoeu	13	14
Fraser	28	29½
Freiman p	..	94
xFrobish	276	290
Do debs	79	80
Fruehauf	7½	7½
xGaitwin	14	15
xGalkeno	102	103
Gatineau	30	30½
Do 5%p	102	103
Do $1p	100½	110
Geco M	15½	15½
Gen Bake	5½	6
G Dynam	55	56
GMC	40½	41½
xGen Pet	525	530
Do A	530	540
GP Mfg A	34	36
Do B	36	..
GS Wares	6½	6½
Do pr	..	79
xGenex	24	24½
xGeo Scie	85	90
xGnt Masc	12	13
xGia YK	460	465
xGlac M	128	132
xGlenn Ur	48	50
xGoldale	22½	26
xGoldcrst	12½	13
xG Eagle	8	8½
xG Man	110	120
xGF Uran	20	24
Goodyear	192	197
Do pr	39½	44½
G Macka A	5	7
Do B	5	6½
Grafton A	13½	14
xGrah Bo	21	21½
Granby	800	850
Gr Toy	36½	49
xGrandine	11	12
xGranduc	255	275
GL Pap	45½	46½
GL Pwr	25	26½
Do pr	22½	23
GN Gas	9½	10
Do pr	40	42
Do 2.80p	51½	51½
Do wts	590	600
Gr Plains	42½	43½
GW Coal A	6½	6½
Do B	5	5½
Gt West	..	13½
xGreenin	5	5
xGreyhk	42	43
Gridoil	10	10
Guar Tr	21	21½
xGulch	15½	17
xGulf Ld	10	11
Gunnar	19½	19½
Do wts	11½	11½
xGurney	150	230
Do pr	10	11½
xGwillim	8½	9
Gypsum	24	25
Hahn	14½	15
[illegible]	[illegible]	[illegible]
xHallnor	200	225
H Cotton	15	15½
Do pr	86	87
Hd Carpet	6½	7
xHd Rock	13½	14
xHar-Min	30	31
Hartz A	7½	8½
xHasaga	17	18
xH of La	11	11½
xHeadwa	66	69
xHeath	10	10½
xHees	..	375
Hendshot	6½	6½
Do pr	85	92
xHeva	7	..
xHi-Bell	145	151
xHiwood	22	24
H Dauch	44½	48
Hi-Tower	19½	10½
xHold A	150	230
Do B	..	200
Hollinger	33½	33½
Holt Ren	50½	..
Do 1st p	95	..
Do 2nd p	98	..

	Bid	Asked
Hom O A	19	19½
Do B	18½	19
H Smith	21½	22½
Do pr	39	42
xHoyle	500	565
Hud Bay	67½	67½
xHu-Pam	35	39
Hugh OA	14	14½
Do B	12½	..
Do pr	28½	..
xInspirat	70	72
xHumber	185	189
Hur Erie	23½	24
Imp Bank	54½	55
Imp Flo	25½	26
I Invest A	13	13½
Imp Life	54	60
Imp Oil	58	58½
Imp Tob	11½	12½
Do pr	..	5
xInd Lak	12	13
I Accep	31½	31½
Do 4.50p	..	88
Do 2.25p	42½	42½
Do 2.25p	42½	50½
Do wts	..	11½
Ingersol A	7½	7½
xInglis	445	450
Ingram Bp	10½	10½
Inld C p	22½	24
Inland Ga	10½	10½
Do wts	550	570
Do pr	..	14½
xInspirat	70	72
Int Bronz	11½	12
Do pr	22	23
I Mill pr	80	..
I Nickel	107	108½
Int Pete	81	81½
xInt Ran	26½	27
I Utilities	62½	64½
Intprov	11½	12
Do A w	..	20
Do B w	20	150
Inter PL	56½	56½
I Syn Can	16½	17
Do A	15	15½
xIrish Co	121	125
xIron Ba	450	460
xIsotope	160	165
xJ Waite	24	27
xJacobus	130	132
Jamaic PS	..	100
Jamaica P	23	..
xJaye Ex	60	61
xJeanette	44½	45
xJellicoe	20	22
xJoburk	20	22
Johns-M	46½	47
xJoliet	43	45
xJonsmith	16	17
Journ Ott	15	16
xJowsey	77	83
xJump P	56	59
xJupiter	257	260
Kelvinator	7½	8
xKenville	9	9½
Kerr Add	14	14½
xKerr L	106	115
xKilemb	205	215
Do wts	72	75
xKirk Hu	13½	14
xKirk M	100	104
xKirk To	15	16
Labatt	18½	19
Labrador	23½	23½
xLak Cin	124	125
xL Dufau	135	139
xL Ling	11	13
xL Osu	26	30
xL Shore	720	725
xL Wasa	16	19½
L Wds pr	122	130
xLa Lux	355	375
xLamaq	240	255
Laura Se	19½	20
Laurent A	13	..
Do pr	17½	18
Do wts	17	50
L&J A	19	19½
Do B	21½	..
xLeitch	112	113
xLencrt	10½	12
Lewis Bro	8	..
xLexindin	32	32½
xLib Pet	224	226
xLL Lac	300	310
Lob	72	..
Do 1 pr	..	48
Do 2 pr	48	53
Do n A	21	22
Do n B	21½	22½
Do pr	41½	41½
Loews	120	..
xLomega	8	10
xLon Hos	175	250
Do A	6½	8
xLI Pete	21	21½
xLorado	119	120
Do wts	82	83
xLouvict	14	15
L St Lawr	18½	19
Lowney	20	21½
xLyndhst	35	38
xLynx	7½	8½
xMacassa	215	218
xMacdon	45	49
xMacfie	16	17
MacKin St	46	50
Do pfd	96	..
xMacLeo	107	109
M'Mill A	30	32½
Do B	31½	32
xMadsen	158	160
xMages	90	105
xMagnet	7½	8
Mailmn	..	25½
Do pfd	..	..
Do cu p	..	24½
xMajtrans	6	7
xMalartic	160	165
xMneast U	21	24
M Sug pr	..	94
M Leaf G	20½	21
M Leaf M	7½	7½
Do pr	..	95
xMaralgo	35	36
xMarcon	9½	10
xMarigold	23	24½
xMaritim	131	134
xMartin	17	17½
Mass-Har	7½	7½
Do pr	83½	84½
xMatach	40	65
Maxwell	6½	6½
xMaybru	45	46
McBrin p	10½	11½
McCab A	24	27½
Do B	24	27
McColl	81½	82
Do pr	92	94
McIntyre	108	110
xMcKen	23	25
xMcMar	11	12½
xMcWat	42	45
xMedal	495	500
xMent	32½	33
xMerc Chi	5	6
xMerrill	147	154
Mer Pete	16½	17
Mersey p	45	46
xMeta Ur	16	17
Mex LP	13½	14½
Do pr	12½	12½
Mex Tram	12	..
xMidcon	160	162
Mid Pac	..	19½
xMidrim	146	149
xMid-We	380	395
Do wts	190	199
xMill Cit	28½	29
xMillike	330	335
xMilt Bri	250	260
xMinda	11½	12
Min Corp	17½	18
xMin End	25	27
xMin-Ore	16½	17
Mitch & C	..	36
Mitch Rob	8	..
Do Cl B	200	..
Mod Cont	11½	12
Do A	12½	12½
xMogul	140	147
Molso A	23½	24½
Do B	23½	26
xM Knit	350	450
Do pr	83½	83½
Mon Mort	38	45
xMoneta	80	88
Mont Loc	16½	16½
Mont Trs	33	39
Moore	67	67½
Do A	1086	..
Do B	1080	..
Morg & Co	21½	21½
Do 4½%p	92	94
xMulti-M	80	85

	Bid	Asked
xNama C	52	53
Nat Drug	18½	18½
Do pr	10½	11
xNat Exp	25	26
Nat Groc	20	20½
Do pr	25	26
xN Hos A	405	500
Do B	405	415
Nat Lead	121½	121½
xNat Pete	410	415
N St Car	27½	27½
Nat Trust	43	44
xNealon	14	15
xNello	22½	26
xNes Lab	55	58
xN Alger	13½	14
xN Ath	36	40
xN Bid	10½	11
xN Bristol	82	85
xN B Do	295	298
xN Cal	25	28
xN Cham	229	230
xN Conco	40	45
xN Cont	55	59
xN Davie	26	28
xN Delhi	117	118
xN Dicke	151	153
xN Fortu	14	15
xN Gas E	218	220
xN Goldv	13½	14
xN Harri	24	25
xN High	21	22
xN Hosco	24	25
xN Jason	12	12½
xN Kelor	16	17
xNewlund	40	42
xN Man	107	108
xN Mind	30	32½
xN Mylam	13	14
xNewnor	8½	9
xN Rouyn	12	13
xN Senat	7½	8
xN Super	240	245
xN Taku	15	16
xNick R	360	365
xNipissin	250	255
xNisto	8½	9
xNor-Acm	25	26
Noranda	50½	51
xNorgold	20	21
xNoriartic	8	9
xNormeta	435	450
xNorpax	132	134
xNoraync	37	38
xNorthcal	61	63
xNC Oils	53	55
Do wts	305	325
Do pr	36½	36½
xN Rank	144	145
xNorthsp	715	725
Do A w	525	530
Nor Star	15½	16
Do pr	39½	39½
Do wts	770	775
Do w56	500	560
Do A	16½	17½
xNor Can	160	175
NQ Pow	26½	27
Do 1 pr	..	45½
Nor Phon	405	435
NW Util p	77	77½
Northld	60	68
xNorvalie	18½	22
xNudul	38½	42
Oak Wd	8	9
xObaska	8½	9½
xO'Brien	70	71
Off Spec	15	17
xOgama	10	10½
xOil Sele	11	12
xOka Rar	26	30
xOkalta	273	277
xO'Leary	35	36
xOB Sup	50	100
Do pr	8	..
xO Jocky	195	200
Do pr	8½	8½
Do B pr	8½	8½
Do wts	73	75
Ont Loan	25	25½
Ont Steel	25½	25½
Do pr	125	..
Opem	12½	12½
xOrang C	255	275
xOrenada	36½	37½
xOrmsby	52	56
xOsisko	42	43
xPac East	15	15½
Pac Pete	31½	31½
Page-Her	134	135
xPamour	48	49½
xPan West	70	73
xParamaq	10	11
xParbec	7	7½
xPardee	91	94
Parker	475	480
xPater	76	78
xPaymast	20	21
Peace R	16	16½
Pemb N	13½	14
Do pr	..	45
Penmans	26	26½
Do pr	110	..
PC Jewel	16½	16½
Do pr	92	95
xPermo p	355	360
xPerron	86	87
xPeruv O	185	195
xPetrol	96	97
xPhillips	155	159
Photo En	42½	44
xPick Cro	117	120
xPioneer	140	150
xPitch-Ore	10½	11
Placer	11½	12½
xPonder	65	67
Powell R	43	43½
xPow Rou	85	90
Pow Corp	81	84
xPrair O	430	455
xPr Bord	8	9
Prem Tr	83½	85
xPres Ele	160	170
xPreston	805	810
Price Bro	52½	53
xPronto	700	715
Do wts	250	265
xPros Air	162	169
Prov Tran	13½	13½
xProvo G	345	350
xPurdex	10½	12
xQ Ascot	28	29
xQ Chib	111	112
xQ Cop	68	74
xQ Lab	12½	13
xQ Lith	805	810
xQ Man	42	44
xQ Metal	200	205
Que Pwr	30	32
xQunston	18	20
Quemont	13	15
Quinte A	10½	10½
Do C	375	..
xRadiore	92	93
xRainvill	120	123
Rap-Grip	8½	9½
xRare E	60	62
xRayrock	156	159
xReef Ex	12	12½
xReeves	145	150
xRenabie	137	145
xRexspar	67	70
Reynold p	..	85
xRichwll	225	228
xRio Rup	14½	15
R Silk A	14	15
Do B	5	15
xRiv Ath	55	62
Robertson	15½	16
Do $1 pr	18	18½
xRobin	300	300
Do pr	100	290
R Little	9½	9½
Do A	12½	13½
xRoche	20	20½
xRockwin	134	135
xRocky P	68	70
Roe AV C	24	24½
Rolland P	17½	19
Do pfd	75	80
xRowan C	12	13
xRoxana	18½	20
Royal Bk	75	75½
R Oak A	11	11
Royalite	21½	22½
Do pr	36	37½
Russell	11½	11½
xRyanor	11	12½
StL Cm A	16½	17
StL Corp	16½	16½
StL Cp Ap	95	96
xSt M Gl	120	127
xSt. Mich	24	26
xSan Ant	51	57
xSand Ri	46	47
xSapphir	160	163
Do debs	65	67

	Bid	Asked
Sar Bridg	15	15½
xSask Co	335	340
Scarfe A	..	9½
Do B	100	..
xScurry	360	365
Scythes	13	15½
Do pr	19½	..
xSec Free	530	540
Shawin	32½	32½
Do A	101	..
Do A pr	41	42
Do B pr	..	47½
xSheep Cr	62	..
xSherritt	595	600
Sher-Wms	28½	29
Do pfd	131	..
Shrf-Hors	14½	14½
Do pr	28	29
Sicks	21½	22
Do vt	20½	21
xSigma	405	460
xSilanco	13	14
Silknit	18½	24
Do pr	37½	..
xSil Mill	62	67
xSil Stan	49	50
Silvrwd A	9½	10
Do B	10½	11
Simpsons	18½	18½
xSiscoe	84	88
xSKD Mfg	5	5
Slater n	18	18½
Do pr	42½	..
xSloc VR	9½	10
Somville p	43	48
xSouris	24	25
Southam	51½	54
xSou Am	36	..
xSouth U	36	39
Spartan	10	10½
xSpooner	62	68
xStdcona	35	38
St Brands	38½	39½
St Pav	41	42
St Radio	12	12½
xStanleig	500	505
Do wts	350	360
St Broc A	6	8
Do B	6	7½
xStanrck	325	355
xStanwell	150	152
xStarratt	22½	23
Stedman	23½	24½
Steel Can	71	71½
xSteeloy	8	8½
Steep R	21½	21½
Steinbg p	87½	98½
Ster Tr	42½	42½
xStovel p	5	5½
xStuart Oil	14½	15½
xSturgeon	35	38
xSud Cont	11	11½
xSullivan	265	300
xSunburst	41	46
S Propane	8½	8½
Do pr	20½	21
Do wts	330	335
Suptest or	19	20½
Suptest c	475	505
Do pr	95	98½
xSurf In	7½	8½
Switson	395	400
xSylvanit	165	170
Tamblyn	38½	40
Do pr	37½	42
xTandem	13	13½
xTaurcanis	..	40
Taylor PC	9½	9½
Do pr	8½	9
xTeck-H	210	212
xTemag	335	350
xTex Cal	83	84
Tex Co	..	74½
xThom L	84	85
xThom P	375	410
xTiara	19	20
TT Tailors	10½	21
xTombill	60	61
xTorbit	34½	40
Tor-Do Bk	44½	45
Tor Elev	15	17½
T Gen Tr	36	38
Tor Iron	28½	29
Do A	29	29
Tor Mort	101	..
Tor Sav	37	..
xTowag	12	13
T Fin A	41	41½

	Bid	Asked
Do B	37½	40
Do 4½p	87½	87½
Do 5%	45½	45½
Do A rt	17½	..
Do B rt	16½	..
xTrans C	257	265
xTrans-E	305	310
Trans-Mt	116	117
Tran PPL	26½	27½
xTrans R	24½	26
xTrin Oil	730	740
xTribag	42	55
xTrin Chi	27	29
xUlt-Shaw	89	90
xUn Acc	6½	6½
Do 2 pr	81	81
Un Gas	77½	78
Do rts	305	310
xU Min	20	21
xU Asbes	665	670
U Corp A	25½	26
Do B	24	24
xU Estella	14	15
U Fuel A	37	38
Do B	62	65
xUn Ken	430	440
xU Mont	13	14½
xUn Oils	365	370
Un Steel	15	15½
Univ Pro	26½	27
xUpp Can	68	69
xVent rts	138	145
xVanadiu	680	700
xVandoo	11	12½
Ventures	42	43½
Simon & S	20½	25
Visu Ltd	63	72
Vicero A	475	500
Do B	200	290
xVico	13	18
Vic G Tr	24	24
xViolam	164	165
V Dare pr	12½	14½
xVulcan	71	79
xWainwr	400	405
xWaite A	775	785
Walk GW	78½	79
Wat Equi	13½	14
xWayne	22	25
xWebb K	375	410
xWeedon	37	40
xWerner	25½	26
xW Mas p	..	23
xWespac	43½	44
W Kooten	118	..
xW Malar	11	13
xW Mayg	176	180
Westeel	17½	17½
W C Brew	26	26½
xW Decal	250	260
Do wts	95	100
W Groc A	33½	34
Do pr	25	27
xW Lease	505	640
xW Naco	205	215
W Plywd B	14	15½
Weston A	26½	27
Do B	26½	27
Do pr	87	88½
Do A w	11	11½
White 1p	..	37½
White Pa	11½	12
xWillroy	175	180
Do wts	100	125
xWiltsey	26½	27
xWinch	8½	9
xWindwar	10	10½
Wpg Cent	17½	17½
xWood A	330	375
GH Wd p	94½	99
J Wd A	37½	38½
Do pr	89½	93
xWoodgr	101	104
Wdward A	11	11½
xWool Co	385	400
xWr Harg	140	150
xYale Ld	23	25
xYan Can	10	10½
xYellorex	9	10
xYk Bear	158	159
xY Kn A	170	170
Do B	..	50
xYukeno	7	8
Zeller 4½%	44½	..
xZenmac	32	33
xZulapa	40	43½

x—Quoted in cents

Calgary Oils

Quoted in Cents

	Bid	Asked		Bid	Asked
Albedena O	6½	7	Leamac P	7½	8
Ala-Ldc O	8	10	Leduc Cal	15	18½
Amalta O	4½	6	Lloydmr D	45	75
Barons O	6½	8	M Creek O	90	99
Baco O&G	..	51	Moisca O	150	160
Beshaw L	11	12	Monarch O	12	15
Blue Cn	23½	24	N Rchmn O	8½	9½
Cdn Erdjay	4½	4½	N Richfld	10	11
Cdn Fort	16	17	No Contin	21	22
Carleton O	..	85	Nuco P	34½	36
Cstle O&G	17	18	Quinalta P	45	47½
Century O	17	18	Reality O	3	3½
Claybar U	15	18	Renfrew P	4½	5
Comand O	70	200	Ridgeway P	5	5½
C Grease C	8	9	R Cdn Ven	87	..
Dom Min	9½	10	Sage O	94	99
Dubar Ex	4	5	Saster o&g	..	21
East Can G	21	23	Select O	11	12
Etoran O	10	11	Share O	12	12½
Freehold O	4	4½	Silver City	13	14
Fort S J	865	915	Strgeon P	11	11½
Gold Sat	24	28	Titan P	350	400
Gold Spike	7½	9½	Transfld P	5	6
Hargal O	7½	8	Tri-Zone O	9	10
Hndren O	13½	15	Turnr V O	35	39
Jump Pnd	50	60	Vanalta no quotes		
Kenafe P	12	12½	West Warn	9	9½
Keno O	16½	17	York O	..	7½

Unlisted Stocks

(Compiled by Intercity Securities Corporation Limited, Toronto)
June 17, 1957

	Bid	Asked
Alberta Gas Trunk Line	19.25	20.25
Algoma C. & H.B. Rly. com.	37.00	38.00
Do. pfd.	1.00	....
Allens Toronto, units	43.00	....
Anglo Can. Telephone "A"	37.00	38.00
Bowes Ltd. 1% pd.	.70	.80
Brinton Peterboro Carpet	48.00	53.00
British America Assce.	110.00	115.00
B. C. Sugar	30.00	32.00
B.C. Telephone 4¾% pfd.	87.00	....
British Mortgage & Trust	230.00	....
Can. Cons. Grain, units	110.00	....
Can. Corp. Management	5.50	6.25
Can. Crushed Stone 6% pfd.	95.00	....
Can. Delhi Pete	12.75	13.25
Can. Foreign Securities	13.00	....
Can. Insurance Shares	72.00	80.00
Carlton Club	140.00	....
Cawthra Apts	42.00	....
Chase, Dr. A. W., com.	1.75	2.25
Colonial Steamships com.	240.00	....
Commercial Finance	51.00	....
Concourse Bldg., units	83.00	....
Concourse Bldg., v.t.	56.00	....
Crain R. L. pfd.	75	....
Crown Life Insurance	120.00	125.00
Debenture & Securities	82.00	90.00
Detroit Internat. Bridge	16.00	18.00
Dom. Can. Gen. Insce.	42.00	53.00
Dom Linseed Oil, units	2.75	....
Dom Manufacturers com.	5.00	....
Do., 7% pfd.	80.00	....
Dover Industries	10.00	10.50
Eastern Canada Savings	17.00	19.00
Eastern Trust Co.	36.00	38.00
Essex Packers com.	1.50	2.25
Do. pfd.	35.00	39.00
Excelsior Life Insurance	130.00	140.00
Goderich Elevator	23.50	24.25
Granite Club	14.25	14.75
Gt. Britain & C. Inv. com.	15.00	....
Do. pfd.	108.00	111.00
Guarantee N. Am. fully pd.	365.00	385.00
Do. 20% pd.	85.00	....
Halifax Insurance	11.50	13.50
Highland Dairy pfd.	40.00	....
Homewood Sanitarium	88.00	92.00
Hudson's Bay Co.	30.50	31.25
Humber Amusement Pier	.30	.50
Humberstone Shoe	9.00	....
Industrial Mortgage & Trust	77.00	....
Ingersoll Machine 4% pfd.	90.00	....
Ingersoll Machine & Tool B	3.00	3.50
Ingram & Bell com.	4.75	5.75
Jenkins Bros.	68.00	73.00
Lambton Golf Club	380.00	400.00
Lambton Loan Shares	80.00	....
Lawson & Jones 1% pfd.	.75	....
Lond. Can. Inv. 4% pfd.	46.00	48.00
Do. A	41.00	....
London Life Insurance	140.00	147.00
Lord Simcoe Hotel A	4.50	5.25
Manufacturers Life	328.00	338.00
Maritime Life	118.00	125.00
Monarch Life 60% pd.	365.00	....
Morrow Screw & Nut com.	35.00	....
National Life 30% pd.	330.00	340.00
Nat. Sewerpipe units	13.00	14.00
Niag. Lower Arch Bridge	60.00	65.00
Nor. Ont. Nat. Gas Shares	23.00	26.00
Do. Units	39.00	42.00
($20 Deb. and 1 com.)		
Nova Scotia Lt. & Pr. com.	12.00	12.50
Nova Scotia Trust	19.00	....
Oakville Wood 6% pfd.	62.00	67.00
Paramt Oshawa Theatres	13.00	....
Park Lawn Cemetery	2.00	....
Pembroke Electric Light	30.00	....
Phillips Electrical	14.00	15.00
Prairie Royalty Trust, units	2.25	....
Prudential Trust	17.00	....
Quebec Natural Gas Units	190.00	200.00
(with 4 com. shs.)		
Quebec Natural Gas Shares	34.00	35.00
Rapid Grip Batten pfd.	90.00	95.00
Reliance Pete A and B	35.00	....
Do. pfd.	39.00	42.00
Rio Tinto Warrants	2.35	2.70
Robin Jones Whitman pf.	23.50	....
Royal Oak Dairy B	4.00	....
Sherbrooke Trust	155.00	....
Sincennes McNaughton Line	3.00	....
Skyway Drive-In Theatre	1.85	....
Sovereign Life 15% pd.	100.00	....
Standard Fuel, common	2.75	....
Do. pfd. $2.25	36.00	40.00
Summit Golf	18.00	25.00
Sun Life Assurance	228.00	240.00
Supercrete Ltd.	3.25	3.75
Surpass Petrochem.	1.30	1.35
Teleflex Ltd.	10.00	12.50
Thorncliffe Park	5.00	5.75
Toronto & London Inv.	2.75	3.25
Tor Medical Arts Bldg.	87.00	....
Trans-Canada Pipe Shares	44.50	45.50
Do. Ex Units	155.00	158.00
(with 3 com. shs.)		
Triarch Corporation	100.00	101.00
United Cat. Shares	11.00	13.00
Waterloo Mfg.	6.00	8.00
Waterloo Trust	31.50	32.50
Westcoast Trans Units	335.00	340.00
(with 3 v.t. com. shs.)		
Do. V.T.	51.25	52.25
Western Assurance	71.00	75.00
Western Life 25% pd.	62.00	70.00
Wood Alexander 6% pf.	87.00	92.00
By Kippen & Company Inc., Montreal		
Algoma C. & H.B. Rly. com.	36.50	37.50
Cons. Theatres A	6.00	8.00
Do B	3.00	4.00
Cuban Can. Sugar	10.00	....
Dupuis Freres pfd.	17.00	19.00
Guar. Co. of N. America	330.00	380.00
Hart Battery com	8.00	10.00
Hudson's Bay Co. (new)	31.00	31.75
Maritime Tel. & Tel.	15.50	16.50
Mtl. & Dist. Svgs. Bank	47.00	49.00
New Brunswick Tel.	11.50	12.50
N. S. Light & Power	12.50	13.50
Ont. & Que. R. 5% Cap Stk.	100.00	....
Prov. Bank of Can.	35.25	36.00
Prudential Trust Co.	16.00	....
Sherbrooke Trust Co.	175.00	....
Strategic Materials	22.00	24.00
Sun Life Assurance Co.	225.00	235.00

Toronto Curb

	Bid	Asked		Bid	Asked
Andian	5½	5½	D Oil Clo	26	29
Ang Cdn	32½	33	Dupont	21½	21½
An-Nfld	8½	8½	Do pr	80	90
Asbestos	31½	32	Gaspe Co	34	35
B A Bank	28	34	Hayes	26½	30
Brown	15½	15½	Int Pap	100½	102
xBulolo	385	400	Int Util	63	64½
CD Sug	23	23½	Langley p	39	45
Can Ving	17½	18½	Lob Inc	87½	90
C Bronze	28½	30	MacLaren	71	85
C Cottons	11½	15	Niag Wire	43	44
Do pr	7½	8	MO Paper	30½	31½
CG Inv	30	30	Ogilvie	32	32
C Indust	19½	19½	Do pr	132	138
CIL pr	75½	79	xPato	400	405
C Ingersoll	51½	53	xPend Or	260	300
xC Marco	350	360	Price Br	53½	53
C Westing	48½	48½	Ridgeway	..	43
xCoast Co	340	475	Sangamo	11½	12
C Paper	34½	35	xSW Pete	88	90
xDalhousie	31	34	Third CGI	5½	6
DeHav	185	250	Twin City	12½	17
D Bridge	26½	26½	xYukon C	70	74
D Glass	65	67½	Zellers	32	32½
Do pr	14½	15	x—Quoted in cents		

Canadian Stock Exchange

	$			$	
Beaubran	29½	31	Windsor H	..	47½
Beld Cort	10	12	Wood Mfg	42	..
Do pfd	11½	13½	**MINES**		cents
Big'm store	5	8	Alta	8	8½
Do pfd	12½	..	Ameranm	10	11
Butter, H	175	..	Arno	7	8
C Floor B	14	..	Band-Ore	5	6
Cdn Int In	20	25	Barvallee	14	15
Do pfd	86½	..	Beatrice	7	10
C Pwr Pap	7	8	Bellechass	55	59
C Silk A	200	300	Belle-Chib	17	19
Catelli A	..	20½	Boreal Rare	5	5½
Do B	35	..	Bouzan	50	54
Cinzano A	35	..	Burnt Hill	52	50
Do 5½ p	80	..	Calumet Ur	7	7½
Cl Neon A	8½	10	Cdn Lithm	30	32
Do B	8½	10	Carnegie	11½	12
Do pfd	95	99	Cartier-Mal	4	5
Cn Div. A	130	130	Cortez Ex	6	6½
Do pfd	33½	..	Duvan	..	35
Cn Textls	..	17	Eastern S	310	325
Crain R.	33½	..	Fab Metals	20	31
Dav & F A	..	50	Fontana	6½	..
E Koot pf	130	135	Gui-Por U	8½	10
F Pow S	410	445	Hillcrest C	70	..
Horner A	9½	10½	Hudson-Rd	34	35
H La Salle	40	..	Iso Uran	45	47
Hubd Flt	225	..	Jardun	4½	5
Do A	..	21	Kontiki Ld	12	14
Hydro Elec	10½	..	Lingsd Cp	8	8½
I Paints A	8	8½	Mogador	21	25
Do pfd	20	25	Molybdte	141	147
Iv Found	42	..	Nw Formq	26	27
Do pfd	55	60½	N Pacific	187	190
Lambert A	10½	13	N S'Tiago	9½	10
Do B	15	17	N Vinray	7	8
Latonia Iv	18½	19½	Nocana	8	8½
Lochaber	175	..	Orchan U	84	85
London C	8½	9	Pitt	7	8
Maclaren P	83½	84½	P Prime	8½	9
Melchers Ds	6	..	Que Smelt	39	40
Do pfd	..	7	Red Crest	8½	9
Mtl Refrig	38½	..	Sma-Duver	7	8
Mt. R Rice	15½	..	Tache Lk	30	31
Nfd L&P	..	56½	Taxin	56	58
Paton Mfg	10½	13	Tiblemont	25	27
Do p 7%	..	22½	Trebor	22	25
Pl Ser St	8½	..	Valor Lith	15	16
Pow Crp. 1	..	42½	Vir Min	73	75
Do 2nd	80½	..	Wendell	5	5½
Que-Tel	23½	23½	Westville	13	18
Reitman's	14½	15	**OILS**		cents
Rd Chains	15½	20½	Bonn'lle	34	35
Sangamo	11½	13	Calalta	..	133
Sou Cn p	133	135	Empire O	15½	17
Tooke Brs	70	145	Gaspe	16	17
Do pfd	..	145	Gateway	6	8½
United A. A	8½	9	Phillips	154	156
Do V.T. A	8½	9½	Quebec O	13	13½
Unit Dist	11	..	Westbrne	104½	105
Wilson J C	9½	..	Waterman	..	7

Bond Tenders

12 Noon, June 20, 1957, Government of Canada Treasury Bills — Payable Sept. 20, 1957, $125,000,000. Dated June 21, 1957.

12 Noon, June 20, 1957, Municipality of the District of Clare, N.S. — 5¼% 1-20-year debentures, $185,000. Dated June 1, 1957.

Grain Prices

Winnipeg Futures

Week June 17, 1957

Crop year from Aug. 8, 1956 High	Low		High for week	Low for week	Close June 17
		Oats—			
.80½	.65½	July	.70½	.68½	.70½
.78½	.68	Oct.	.70	.68	.70
.69½	.67½	Dec.	.69½	.67½	.69½
		Barley—			
1.04½	.88½	July	.95½	.92½	.95½
1.02½	.90½	Oct.	.95½	.90½	.95½
.93½	.71	Dec.	.92½	.89½	.92½
		Rye—			
1.49½	.97½	July	1.04½	1.01½	1.04
1.35½	.98½	Oct.	1.05½	1.02½	1.05½
1.08	1.00½	Dec.	1.07½	1.04½	1.07½
		Flax—			
3.23	2.33½	July	2.44½	2.38½	2.43
3.00	2.37	Oct.	2.42	2.37	2.41½
[illegible]	[illegible]	Dec.	[illegible]	[illegible]	[illegible]

Winnipeg Cash

	For Week June 17 High	Low	Prev. Week High	Week Low
Oats—				
2 C. W.	.74½	.73½	.73½	.73
3 C. W.	.68½	.67½	.67½	.66½
Barley—				
1 Feed	.91½	.85½	.87	.86
2 Feed	.90½	.84½	.85½	.83½
1 Malt	1.12½	1.03½	1.11	1.10½
Rye—				
1 C. W.	1.05	1.02½	1.01½	.97½
2 C. W.	1.05	1.02½	1.01½	.97½

Chicago Futures

Week June 17, 1957

Crop year from Aug. 8, 1956 High	Low		High for week	Low for week	Close June 17
		Wheat (Old)—			
2.34	2.00½	July	2.05	2.00½	2.04½
2.35½	2.03½	Sept.	2.08½	2.03½	2.08½
2.46½	2.08½	Dec.	2.13½	2.09	2.12½
		Wheat (New)—			
2.16½	2.01½	July	2.05½	2.01½	2.05½
2.19	2.04½	Sept.	2.08½	2.04½	2.08½
2.23½	2.09½	Dec.	2.14½	2.09½	2.14½
2.19½	2.09½	Mar.	2.15	2.09½	2.14½
2.08½	2.04½	May	2.08½	2.05	2.07½
		Corn—			
1.52½	1.25½	July	1.30	1.26½	1.29½
1.46½	1.27½	Sept.	1.30½	1.27½	1.30½
1.44	1.21½	Dec.	1.24½	1.21½	1.24½
1.48½	1.25	Mar.	1.28½	1.25½	1.28½
1.31½	1.28	May	1.31½	1.28½	1.31½
		Oats—			
.77	.62	July	.64½	.62½	.64½
.77½	.63½	Sept.	.66½	.64½	.66½
.71½	.66½	Dec.	.69½	.67	.69½
.72½	.69½	Mar.	.71½	.69½	.70½
		Rye—			
1.60½	1.10½	July	1.13½	1.10	1.13½
1.53	1.13½	Sept.	1.21½	1.18½	1.21½
1.61½	1.17½	Dec.	1.26	1.19½	1.26
1.29½	1.20½	Mar.	1.29½	1.22	1.29½
1.29½	1.20½	May	1.29½	1.23½	1.29½
		Soybean—			
		July	2.33½	2.21½	2.31½
		Sept.	2.35½	2.24½	2.35½
		Nov.	2.31½	2.20½	2.31½
		Jan.	2.35½	2.25½	2.35½
		Mar.	2.38½	2.27	2.38

Chicago Cash

	For Week June 17 High	Low	Prev. Week High	Week Low
Corn—				
2 Yell.	1.36	1.28	1.31½	1.31½
Oats—				
H. W.	.76½	.74½	.76	.75

DIVIDEND NOTICES

Silverwood Dairies, Limited

Class "A" Dividend No. 44

Notice is hereby given that the regular quarterly dividend of Fifteen cents (15c) per share has been declared on the outstanding Class "A" Shares of the Company, payable October 1st, 1957, to shareholders of record as at the close of business on August 30th, 1957.

Class "B" Dividend No. 40

Notice is also given that the regular quarterly dividend of Fifteen Cents (15c) per share has been declared on the outstanding Class "B" Shares of the Company, payable October 1st, 1957 to shareholders of record August 30th, 1957.

By Order of the Board.
L. R. GRAY,
Secretary.
London, Ontario,
June 13th, 1957.

The 114th consecutive quarterly GUARANTY TRUST Company of Canada DIVIDEND

17½¢ a share—rate of 7% per annum payable July 15, 1957 to shareholders of record June 29, 1957

J. WILSON BERRY
President and General Manager

THE EASTERN TRUST COMPANY

225th Consecutive Dividend

Notice is hereby given that a quarterly dividend of 2½% (25 cents per share) has been declared on the paid-up Capital Stock of the Company (par value $10.00 per share), for the quarter ending June 30th, payable July 2nd, 1957, to shareholders of record as at the close of business June 20th.

Dated at Halifax this 14th day of June, 1957.

By order of the Board
E. G. DEWLING,
Secretary

MERSEY PAPER COMPANY LIMITED

A MEMBER OF THE BOWATER ORGANIZATION

DIVIDEND NO. 3
PREFERRED SHARES

NOTICE IS HEREBY GIVEN THAT a quarterly dividend of sixty-eight and three quarters cents (68-¾¢) per share has been declared on the outstanding 5½% Cumulative Redeemable Preferred Stock of the Company payable on the 1st day of July, 1957 to holders of record of the said shares as at the close of business on the 7th day of June, 1957.

By Order of the Board,
J. A. PARKER,
Secretary
Liverpool, Nova Scotia.
June 5th, 1957.

NOTICES

WEST TERRITORIES OILS LTD.

NOTICE

The shareholders of WEST TERRITORIES OILS LTD. (In Liquidation) have the right to convert their shares in said Company for shares of CANADIAN HOMESTEAD OILS LIMITED on the basis of one share of CANADIAN HOMESTEAD OILS LIMITED for each ten shares of WEST TERRITORIES OILS LTD. In order that the liquidation of WEST TERRITORIES OILS LTD. may be completed notice is hereby given that all shareholders of WEST TERRITORIES OILS LTD. are required to submit their Certificates for said shares to PRUDENTIAL TRUST COMPANY LIMITED, 506 Eighth Avenue West, Calgary, Alberta, for conversion accordingly on or before the 22nd day of July, A.D. 1957.

PRUDENTIAL TRUST COMPANY LIMITED.

FEDERAL GRAIN LIMITED
AND
THE ALBERTA PACIFIC GRAIN CO. (1943) LTD.
WINNIPEG CALGARY
County Elevators located in all Prairie Provinces, and Terminals at Fort William, Port Arthur and Vancouver. Cereal and Forage Seed Plant at Winnipeg.
We invite your inquiries regarding feed and seedgrain.

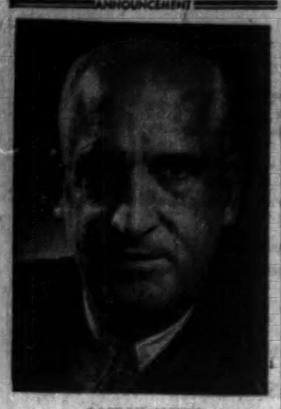
N. M. PATERSON & SONS LIMITED
Grain Division
Grain & Coal Merchant
Steamship Division
Carriers of All Bulk Cargoes
Fort William, Ont. Winnipeg, Man. Montreal, P.Q.

K. A. POWELL (CANADA) LTD.
GRAIN SHIPPERS AND EXPORTERS
GRAIN FUTURES
Owners and Operators
Fort William Terminal Elevator Co. Ltd.
and Powell Transports Ltd.
Head Office—563 Grain Exchange, Winnipeg, Man.
Affiliated Companies—Fort William, Ont., Montreal, Que., Vancouver, B.C.

McCabe Grain Company Limited
WINNIPEG, CANADA
LONDON, ENGLAND VANCOUVER

JAMES RICHARDSON & SONS LIMITED
ACTIVE IN ALL PHASES OF THE CANADIAN GRAIN TRADE
Head office: Winnipeg Manitoba
Offices throughout Canada

ANNOUNCEMENT



GORDON FARRELL

Mr. Gordon Farrell, President of Evans, Coleman & Evans Limited, Vancouver, B.C., announces that Canadian Refractories Limited of Montreal, a subsidiary of Harbison-Walker Refractories Company of Pittsburgh, Pennsylvania, has become a substantial shareholder in a new refractories producing company known as Clayburn-Harbison Ltd. Clayburn-Harbison has been known in the past as Clayburn Company Limited.

The Clayburn Company with plants at Abbotsford and Kilgard, B.C., has been manufacturing refractories, facebrick, vitrified clay pipe, and other clay products in British Columbia since 1910, and is one of British Columbia's oldest industries. Canadian Refractories Limited, with two plants in Quebec, is the largest producer of basic refractories in Canada. In addition to supplying the refractory needs of Canadian industry, Canadian Refractories Limited has a very substantial export market.

The combination of Clayburn raw materials and modern equipment together with Canadian Refractories broad research and development facilities will result in a larger and better refractory industry in British Columbia.

Clayburn-Harbison Ltd. will manufacture many of the refractories which are now imported from Missouri and Pennsylvania. Some of these products will also become available for shipment to the other provinces of Canada and to export markets.

Why Use Exceeds Estimates Nickel Mystery Story In U. S.

Special Correspondence

WASHINGTON, D.C.—Mystery is behind the current critical nickel shortage, says a U. S. Senate Committee. It says far more nickel is being used by defense plants than estimates call for.

The mystery is why consumption is so much and so consistently higher than estimates, says the committee.

Most of the nickel used in the U. S. defense program comes from Canada, and almost all Canadian nickel is supplied by the International Nickel Co. In a report on the present nickel situation, the Preparedness Investigating Subcommittee of the Senate Armed Services Committee, spends much time discussing where all the Inco nickel goes.

"The disparity between estimated peacetime defense requirements and reported defense consumption has existed for almost two years," says the 35 page report.

"During that time the actual disparity has grown steadily worse. It recently reached disturbing proportions, with reported consumption exceeding estimates of requirements by more than 60% . . . The most significant factor . . . is the fact that the disparity has continued without satisfactory explanation."

Not much nickel has been going into the U. S. stockpile lately and much stockpile nickel has been diverted to the commercial market to help ease the shortage. While this has helped to bring down nickel prices in the "grey market," (FP, June 15) it also alarmed Senators and Representatives here who fear the U. S. defense program may be affected by the diversions.

The report points out that nickel is becoming increasingly important in building military hardware, while at the same time the civilian market demands are also increasing.

"In our preparedness program nickel is a strategic and critical material of the very highest importance," the report says. When combined with other metals, nickel imparts unique qualities of toughness, strength, durability and resistance to heat and corrosion. For this purpose it is contained in varying quantities in a wide range of alloys, many of which are indispensable to the jet aircraft, guided missile, and atomic energy phases of the preparedness program. In many of these alloys there is no satisfactory substitute for nickel, available in sufficient quantities. And, as the speed of aircraft and missiles increases, the defence requirements of nickel will increase at an even greater rate."

The committee said the current nickel shortage now has reached "grave proportions." In 1956, it said, diversions from delivery to the stockpile exceeded a total of 74 million lb.

Turning its attention on the mystery of consumption being so much higher than estimates, the committee quoted testimony of Robert C. Lanphier, deputy assistant secretary of defense. Lanphier said the mystery might be caused by poor estimating of nickel needs, misuse of military program identifications, overbuying by contractors to build protective inventories or to divert to other uses.

The Senate Subcommittee made this recommendation:

"That the Office of Defense Mobilization deal immediately and vigorously with the problem of the defense disparity without waiting for a test of the effectiveness of the action of placing 'nickel alloys' under control; that all the possible causes for the disparity be investigated fully through the joint effort of all government agencies affected; and that the need for comprehensive quantitative controls be immediately reviewed to insure the success of such an investigation and to prevent the excessive accumulation of inventories of nickel for any defense purpose, or under the guise of being earmarked or needed for the defense program."

BICROFT URANIUM MINES is pushing preparation of new stopes to bring underground development up to mine requirements, Manager J. M. Thompson says in the annual report for 1956.

Operations have shown steady improvement through the first four months this year, with operating profit rising from $19,605 in January to $175,439 in April.

Cost per ton is within estimates although development costs are abnormally high at $3.42 per ton, he says. This condition will continue for the balance of the year until more stopes are made available.

Development results on the 2nd and 3rd levels during the first quarter this year show 1st level ore sections continuing to the new levels with about the same tonnage potential and grade, Mr. Thompson says.

Shaft sinking has been resumed and it will be sunk from 625 ft. to 1,250 ft. to provide a block of five new working levels below the present three, by September this year.

SISCOE MINES reports that its Ontario subsidiary, Siscoe Metals of Ontario, produced 470,471 ozs. silver and 10,136 lbs. cobalt in the first five months of the year. This compares with production of 430,226 ozs. silver and 11,416 lbs. cobalt in the same period last year.

Belcher Mine Dickering For Financing

Completion of an agreement covering senior financing and a marketing contract for **Belcher Mining Corp.** is expected within the next two or three months, President Douglas Banks says.

Negotiations are being carried on with several steel interests, mostly European, he states.

Latest set of negotiations will begin in the next few days with representatives of one of Germanys' largest steel makers, Mr. Banks says.

A capital cost of around $75 million would be required to put the company's huge magnetite iron ore deposits on Innetalling Island into production, he says.

Present plans call for output of 3 million tons annually.

Present plans are based on interim reports of studies on concentration and pelletizing tests that indicate a concentrate of 66% iron, with no serious impurities, can be made.

Final reports on these studies — being carried out in Germany and the U. S., are expected shortly.

Preliminary figures indicate that a pelletized iron product from the Belcher deposits would sell for around $17 a ton at current prices including a premium for the higher grade and the pelletized form of the product, Belcher officials say.

Total mining costs would run around $6.65-$7 a ton, including pelletizing, it is claimed. Open pit mining methods would be used initially.

Since climatic conditions will permit direct shipping to Europe of only about 35% of the 3 million-ton annual output, a stockpiling centre for trans-shipment will have to be established — probably on Greenland, Hugh E. Whipps, traffic consultant, says.

Further transportation studies are being carried out this year, including mapping of a proposed water route through Hudson Bay by the federal government, he states.

As an example, Mr. Whipps said he estimated the per ton transportation cost to Rotterdam from the island at about $5.03, including insurance.

Over one billion tons of magnetite have been indicated in the 1956 drilling program on Innetalling Island, Mr. Banks says.

BRITISH COLUMBIA POWER CORP. had 4,092,225 common shares outstanding at May 30.

MINING INVESTMENTS

Norpax Drifts 2nd Level Grades 2% Nickel-Copper

Development on the second level at the Werner Lake property of **Norpax Oil & Mines** is opening up ore comparable in grade and widths to that on the 1st level, Consulting Engineer W. P. Mackle says.

About 120 ft. of ore have been opened up so far and 20 ft. of advance is being made daily, he told FP.

Initial assays of face samples indicate an average grade of over 2% combined nickel and copper. Detailed assays are expected shortly.

About 700 or 800 ft. of development will be done on this 375-ft. level, he says. Drifting will be carried both east and west.

The crosscut across the ore zone was delayed by an excessive water flow but this was corrected.

Both faces on the 1st or 250-ft. level are still in ore, Mr. Mackle says. Over 800 ft. has been opened up, with widths running up to 30 ft and grade running better than 2% combined. Nickel content runs about 65%-70%.

* * *

Noranda Ends Bouzan Option

An option agreement made last year under which **Noranda Mines** would take up 1 million **Bouzan Mines** shares has been terminated.

Noranda failed to exercise the first option, due July 5, on 200,000 shares at $2.75 each. Other options covered similar blocks at prices ranging up to $3.75.

The agreement had been extended for eight months last November by Bouzan shareholders at Noranda's request. Noranda purchased 500,000 Bouzan shares at $2.50 when the agreement was first made about a year ago.

Financing of exploration of Bouzan's properties in the Chibougamau copper camp was to be shared by associated and subsidiary companies of Noranda.

An intensive drilling program was carried out in the past year on Bouzan's McKenzie Twp. property, and work was also done on properties in Obalski and McCorkill areas, all in Chibougamau.

Copper Rand Chibougamau Mines has agreed to carry on development on the Bouzan property from its adjacent underground workings to the extent that its program permits.

As a result, Bouzan has deferred shaft sinking until information from this work is available. The lower price for copper was also a factor in this decision, Bouzan President J. J. Coghlan says in the annual report.

* * *

Test At Depth For Pater Ore

Nine holes drilled to test the downward continuation of copper ore between 200 and 300 ft. below the 950 ft. level at **Pater Uranium Mines** gave an average grade of 2.26% copper over an average true width of 9.7 ft.

These inclined holes were drilled after completion of lateral work on the 950 ft. level. Three crosscuts were driven into the hanging wall. Two deeper holes have proved the ore zone at more than 600 ft. below this level.

Pater Uranium is shipping bulk sample for treatment and will review surface drilling and underground drifting and diamond drilling. Surface diamond drilling previously had indicated 525,000 tons of ore to 1,000 ft. running 1.98% copper and .14% cobalt.

* * *

New Kelore Mines Extends Ore Body

Latest drilling on **New Kelore Mines'** Lakemount property in the Michipicoten District has increased the size of the indicated ore body to an estimated two million tons averaging .4% copper and .6% nickel plus platinum values, C. S. Johnston, consulting engineer, reports.

Hole No. 314 intersected 30 feet of .38% copper and .71% nickel at 950 feet. The hole was 250 feet west of the last hole on the main contact ore body, still open at depth to the west.

* * *

Group Shares In Murray Mining

Murray Mining Corp., a new company formed to explore the Ungava concession granted geologist Murray Watts, has now been financed.

Of 2 million shares underwritten at 30c each by **Doherty, Roadhouse & Co.**, it is understood that a group of mining companies are taking up half of this block.

They include: **Pacific (Eastern), Ore & Chemical, Falconbridge Nickel, Madsen Red Lake, Bethlehem Copper, Moneta Porcupine, Assembly Mines** and a group composed of **McWatters Gold Mines, Calmor Mines, Lake-Osu** and **Milestone Mines.**

Another 1 million shares of Murray Mining are under option. The first block taken down will net the company $600,000 for its planned three-year exploration program in Ungava, officials say.

Unlisted Mines and Oils

(By Brokers Dealers Assoc. of Ont.)

Approximate quotations, 3.30 p.m., June 17, subject to confirmation and change. An asterisk (*) indicates an increase in price; a dagger (†) a decrease in price.

	Bid	Ask		Bid	Ask
Abenakis	1¼	2¼	Magoma	5	7
Abeta	*2	11	Main Ok	17	20
Advance	8	10	Manecho	4	6
Alexander	4	6	Mall RL	†15	18
Ama Kir	3	5	Mar Bird	†25	27
Anabar	6	7	Maree	1	3
Anamaq	3	4	Mate Yel	5	7
Anuuwon	7	9	McCiaig	2	4
Arctic	2½	3¼	McFinly	7	9
Au Chib	21	24	Miles RL	1	3
Beacon	4	7	Millkirk	5	8
Belfast	3	5	Mindust	80	100
B Grass	6	8	Mt Kepo	2	4
B McDad	6	8	Montgr	†177	180
Bracemq	10	13	Montco	15	18
Braminc	7	10	Murky F	45	55
Bright	1¼	2¼	Murmac	2¼	3¼
Bruce P	13	16	Nat New	10	12
Brunette	5	7	New Met	10	13
Camlaren	3	5	New Aug	†3	4
Camp I	†14	18	N Inseo	5	7
Camray	2	4	N Redwd	5	7
Can Rad	6	8	New Wal	3	4
Canalask	65	67	Nickel O	†10	14
Canuba	†24	25	Nickel L	6	8
Cn Mag	—	110	Nicoba	12	15
C All M	10	12	Nipiron	21	23
Capital	†29	32	Norcourt	2	4
Cn Lith	32	33	Norbeau	60	70
Cn Mart	7	9	Norford	1	3
Cnt Hill	16	19	Normar	1	3
Caral	10	15	Novel Pr	—	2
Chellew	6	8	Obsk '45	16	18
Chipman	†15	17	Oceanic	*365	380
Clinger	†5	7	Oklend	10	12
Clix	6	8	ORare M	10	15
Columbr	5	7	Orchan	†58	60
Columinda	1¼	2	Orofino	†10	12
Comstock	7	11	Orkona	2	4
C Bi Ore	*16	18	Pacemkr	6	8
Can Cop	†12	13	Pascalis	9	11
Canecho	14	17	Parl Cn	27	33
G Harker	†8	11	Pax new	35	45
Crack S	9	11	Payne	1	3
C Vauze	6	8	Peach	1450	1550
Cordell	9	13	Pelanglo	4	6
Craibbe	16	19	Pickering	10	12
Croydon	4	6	Picton	7	9
Deriac	1	3	Pine P	1125	1175
Despina	3¼	5	Pitchvein	5	7
Destrad	3	5	Plum N	30	40
Dom Ex	7	9	Presdor	*2	4
Dunvegn	7	9	Quejo	7	9
Durham	5	6	Quest	1	3
East Lun	3	5	Raglan	1135	140
Echo Ind	1	3	Rand M	4	6
El Bon	8	10	Randona	1	3
Farcroft	5	7	Red Brk	6	8
Fatima	37	40	Redcon	3	6
Forty Fr	30	35	Redruth	1	3
Gal Chib	10	25	Rhyolite	1	2
Gan Cop	†12¼	13¼	Richgrp	6	8
Gateway	5	7	Rio T C	*365	380
Glenbrk	8	10	Romar	20	23
Glencona	3	4	Rugged	1	3
G Harker	9	12	Russet	9	9
Goldmaq	3¼	4¼	Salmita	5	7
Goldyke	3	5	Sheldon	9	11
Gov Gold	4	6	St Mary	130	34
Grd Chib	50	70	Snow L	6	8
Gui Por	9	11	S Dufalt	7	9
Hedwatr	†42	45	Starlight	6	8
HG Yng	11	13	Sunbear	21	3¼
Hornfalt	8	10	Th'crest	28	31
Hot Min	5	7	Tower	5	10
Hucamp	8	10	U Ridge	†15	19
Independ	11	13	Valor	15	17
Jamaica	13	15	Viking	9	11
Jardun	4	6	Wadge	5	7
Jean Lk	14	17	Wesley	*15¼	17
Jerome	3	5	Westall	81	9¼
Kamlac	7	9	West RL	11	3
KB Mng	3¼	10	W Wasa	3	5
Kenda P	1	2	Y David	*17	19
Kenog	9	11	**OILS**		
Laronge	11	14	BC Oil	475	550
Larum	†9	11	C Delhi	123	124
L Expan	7	9	C Sup	*2550	2800
L Roxy	15	20	Harvest	*79	82
Lowy Can	2	3	O Smoky	6	8
Lun Ec	†40	43	N Ranch	6	7
Lynwata	†18	22	Paige Pet	3	—

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Western Decalta	794	1.94	3.00
Central Patricia	796	1.85	2.85
Devon Palmer	796	1.77	2.85
Sylvanite	798	1.30	1.72
Midcon	798	.73	1.72
Home Oil "B"	800	13.00	23.50
Faraday Uranium	802	1.90	3.20
Trans-Prairie	801	19½	32.00
Winnipeg & Cent. Gas	801	13¾	19.00
Can. Hydrocarbons	805	9.00	15.00
Rockwin Mines	804	.32	1.82
Consol. Fenimore	815	1.70	1.89

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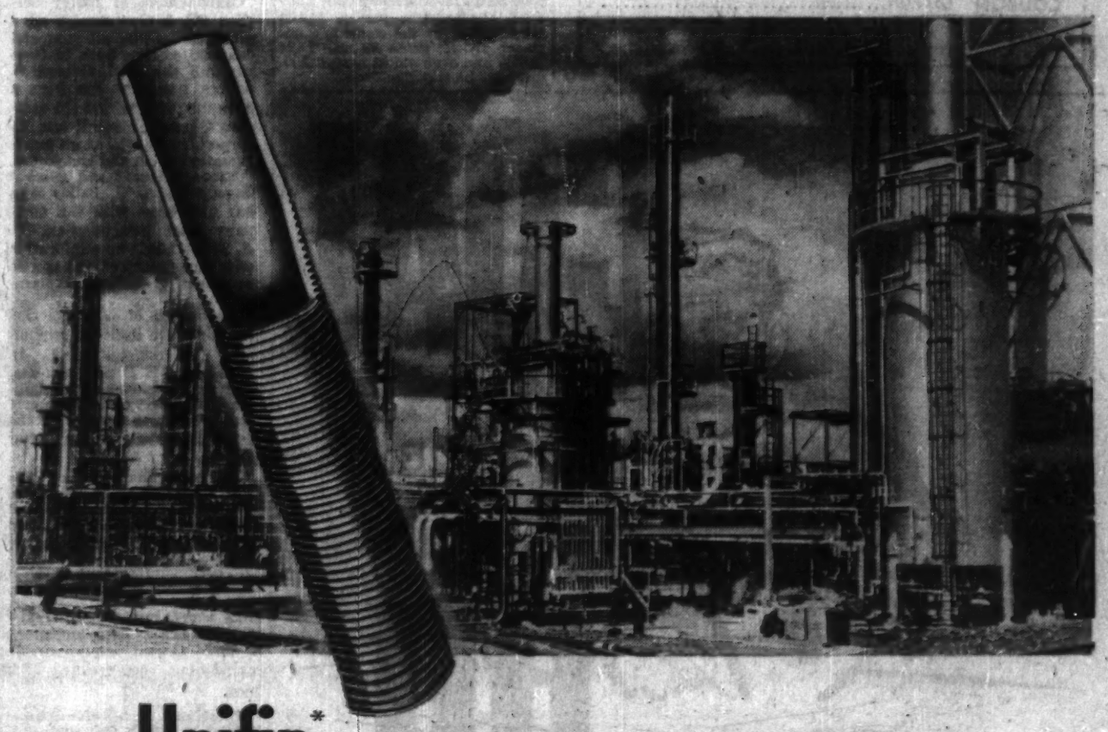

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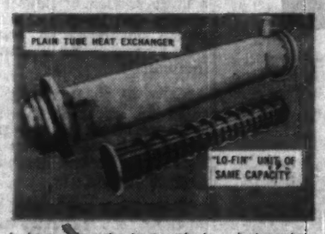

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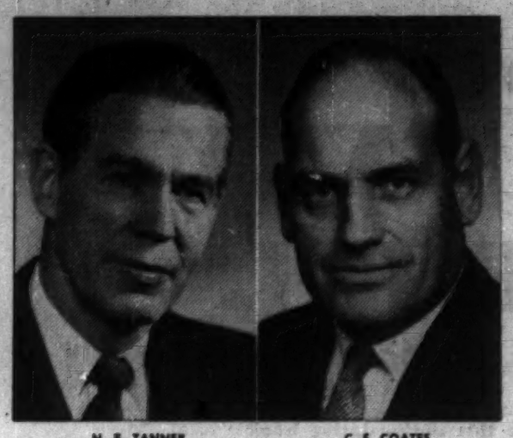

N. E. TANNER C. S. COATES

At a meeting of the Board of Directors of Trans-Canada Pipe Lines Limited held in Toronto, Wednesday, June 12, N. E. Tanner, formerly President, was elected Chairman of the Board, and Charles S. Coates, formerly Executive Vice-President and General Manager of the Company, was elected President.

Mr. Tanner's headquarters will be at Calgary, Alberta, and Mr. Coates will continue to maintain offices in Toronto.

Mr. Tanner was elected to the Alberta Legislature in 1935. He became Speaker of the House and later Minister of Lands and Mines, which position he held until 1952 when he resigned to become President of Merrill Petroleums Limited. In 1954 he became President of Trans-Canada Pipe Lines Limited, and has served in that capacity ever since.

Mr. Coates started in the oil business in 1936 and has been associated with the natural gas and petroleum industry since that time.

In 1943 he joined the Tennessee Gas Transmission Company as Division Pipe Line Superintendent, and served that Company in various engineering, construction and operating positions, having been made Vice-President in 1948, and Senior Vice-President in 1951. He left Tennessee Gas in August 1954 to become Executive Vice-President and General Manager of Trans-Canada Pipe Lines, which position he has held until his election to the office of President.

INTERNATIONAL UTILITIES CORP. during May issued an additional 671 common shares upon exercise of employee stock options. Now 1,219,701 common shares outstanding.

GYPSUM LIME & ALABASTINE CANADA LTD.—An additional 1,730 shares have been issued and paid for at $20.03 each under stock option plan. Now 881,816 shares outstanding.

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Some Junior Oil and Gas Stocks — A Special Study

Baysel Expands Activities

Investment analysts see exciting growth possibilities in Canada's oil industry. The bright future will attract not only the major integrated companies, but also smaller independent companies with good acreage and good management.

Because of the risks involved in oil and gas exploration, investment men recommend that money invested in these stocks be spread among several companies rather than just one.

As a service to its readers, The Financial Post presents another study in a series on the "independents." Representative investment houses have been asked to pick one stock which they would include in such a group of stocks. Publication of this selection does not constitute a recommendation by The Financial Post to buy securities reviewed.

By NORMAN F. ALBERT
Goodwin Harris & Co. Ltd.

Canada's western gas and oil industry comprises one of the most active segments of our economy, with upward of $2 million daily going into exploration and development. Results will be spectacular.

Bailey Selburn Oil & Gas is an exceptionally well situated operation in the industry. It is a well balanced producing and exploration company with oil and gas reserves well located in relation to markets and potential markets.

Major portion of its current exploration effort is being conducted by competent second parties on Baysel's reservation holdings.

Baysel owns net proven reserves, recoverable by primary production methods, of 18,111,372 bbl. of oil, including 634,274 bbl. of condensate. This total is before deducting royalties. Most of this is of good grade and readily marketable.

In addition, the company should be credited with an estimated probable minimum additional reserve of 5,000,000 bbl. from presently undeveloped properties and as a result of assisted recovery methods, exclusive of Pembina.

Also Baysel purchased for $2,185,000 a 100% interest in five 320-acre tracts of Pembina Field land at the Crown Sale late in April. Preliminary estimates show that something in excess of 3,000,000 bbl. of oil should be recoverable from these parcels by primary methods.

Baysel owns net proven reserves of gas amounting to 104.946 billion cu. ft., before deducting royalties. The largest single reserve is in the Bindloss area (42.583 billion cu. ft.), which is located along the proposed gathering trunk system for the **Trans-Canada** gas pipeline. In addition to Baysel's proven reserves, it should be assigned a further 230 billion cu. ft. of undeveloped recoverable gas.

Oil is being produced from 11 separate fields in Alberta and two in Saskatchewan. All are readily accessible and are therefore in a favored position with respect to markets. Most of the reserves are of high-gravity oil located in 11 of the fields.

Gas reserves are scattered widely over the southern half of Alberta, with the principal concentration in two fields—the Pine Coulee field south of Calgary, and the Bindloss field. Both are within reasonable range of the proposed gas gathering trunk system for Trans-Canada gas. Bindloss is the most significant single reservoir.

Baysel's unproven acreage is widespread over Western Canada. Its largest and most important holdings are in Alberta, with lesser holdings in Saskatchewan and Manitoba. Gross unproven acreage in Western Canada amounts to a total of 2,804,091 acres in which it holds a net interest amounting to 1,555,161 acres.

24 Reservations

An interest is held in 24 petroleum and natural gas reservations in Alberta comprising 1,602,724 gross acres, with net interest of 1,078,363 acres. Also an interest in three Crown reserve drilling reservations comprising 31,589 acres.

These drilling reservations are located at North Bearspat (8,570 acres), Edson (11,499 acres) and Janes River (11,520 acres).

It is of particular interest that a large portion of Baysel's reservations and lands are being currently developed in association with several major companies and individuals.

Many of these blocks are located in or near the foothills area, spread all the way from the Montana border to the British Columbia border southwest of Grande Prairie.

These lands are located in those portions of the Alberta basin that, in the opinion of engineers, hold the best prospects in Alberta for large future reserves of petroleum and natural gas.

Most of Baysel's lease acreage is distributed over more than 150 separate areas in southern half of Alberta.

Due to difficulty in exploring small parcels of widely distributed lease acreage, such acreage could be more of a rental burden than an asset unless it is kept evaluated currently by studies of the regional subsurface geology from both pool and wildcat development wells.

In the case of Baysel's spread, however, it is the opinion that lands may be a substantial asset, since the company has a technical staff which keeps an accurate up-to-date knowledge of the geology affecting its scattered lease holdings.

In addition to these petroleum and natural gas properties, the company has acquired substantial interests in four Bituminous Sand permits totaling approximately 200,000 gross acres. These lands are well situated with respect to current developments in the Athabasca Tar Sands.

Baysel has several operating subsidiaries. Most important is **Trident Drilling**, which in 1956 did 514,773 ft. of drilling and produced revenue of $4 million. Baysel last year had revenue of $2.4 million from its gas and oil sales and $408,000 other income. Total revenue was $6.8 million, and operating profit was $2.9 million. Depreciation was $693,000, amortization $642,000, and leasing, geological and geophysical expenses and unproductive development, $646,000. Net profit was $742,716 after other credits of $5,270, interest charges of $95,112, and profit to minority interest of $84,890.

Financial position at Dec. 31, 1956 consisted of current assets of $3,423,571 against current liabilities of $1,450,747 and bank loans and debentures of $2,604,270. Capitalization at end of 1956 comprised $4,627,750 5% preferred shares, 2,809,408 class "A" shares and 564,000 class B shares.

The company recently issued $10,000,000 (400,000 shares of $25 par) 5¼% preferred shares, convertible into class A shares at the rate of 1 3/10 class A for each preferred, on a sliding scale.

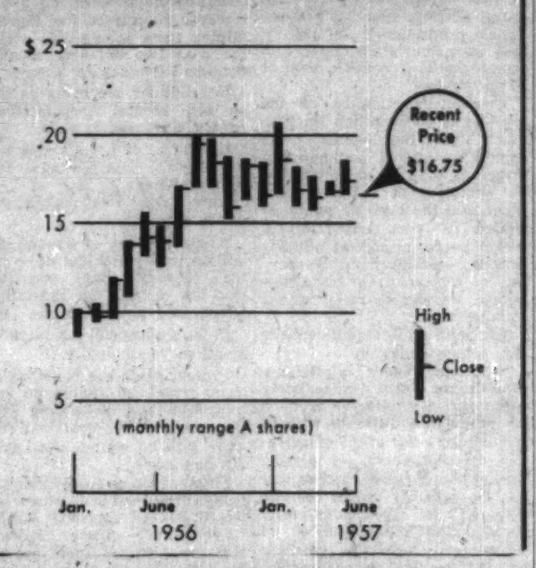
This ranges from free conversion to June 1, 1960, to $2.60 for each preferred share converted to June 1, 1962 and $5.20 to June 1, 1963.

A portion of the proceeds of the recent convertible preferred issue will be devoted to taking care of the $2,185,000 paid for the Pembina acreage bought last spring.

With a minimum of some 32 exploratory wells scheduled to evaluate Baysel lands during the next six months, it is felt that proven reserves will be increased substantially as will production by time the next annual statement goes to press.

As a result of aggressive policy of land acquisition in favorable areas, the company should enter into a number of additional exploratory projects.

Price Climb In Bailey Selburn



The Men

Management of Bailey Selburn Oil & Gas consists of a group of leading oil men and financial experts both in Canada and the U. S. George H. Sellers, president, has been a dynamic force behind the company's growth since it was incorporated in 1952 as an amalgamation of several companies.

Vice-president and general manager is A. G. Bailey who has also been with the company since incorporation. W. A. Friley heads up exploration as a vice-president and is also president of Selbay Exploration.

The board of directors also includes such leaders in the oil and gas industry as C. O. Nickle, and H. R. Shannon who is a vice-president of the drilling subsidiary and formerly was production manager of the southern division of the Carter Oil Co.

Leading financiers on the board include H. R. Jackman, president of Dominion and Anglo Investments Corp., and E. M. Kennedy, president of Midland Securities.

ATLAS CHIBOUGAMAU MINES plans a shallow diamond drilling program on its newly-acquired iron ore prospect in Ligneris Twp., northwestern Quebec, President Roy Robertson states. Drilling will be done across an anomalous zone indicated by magnetic survey. Initial investigation by the company's engineer shows grade of 22.3% to 29.62% iron over widths from 13.9 ft. to 30 ft., he reports.

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Recommended Home, Feb. 11th at $12.00..... Apr. 30th price $20.66
Recommended Provo, Mar. 29th at $2.72 ..... Apr. 30th price $ 3.60
Recommended Stanwell, April 12th at $ .90 ..... Apr. 30th price $ 1.38
Recommended Trans-Canada, May 17th at $30.00 ..... May 30th price $43.00

All recommendations were on the nose—no others were made.
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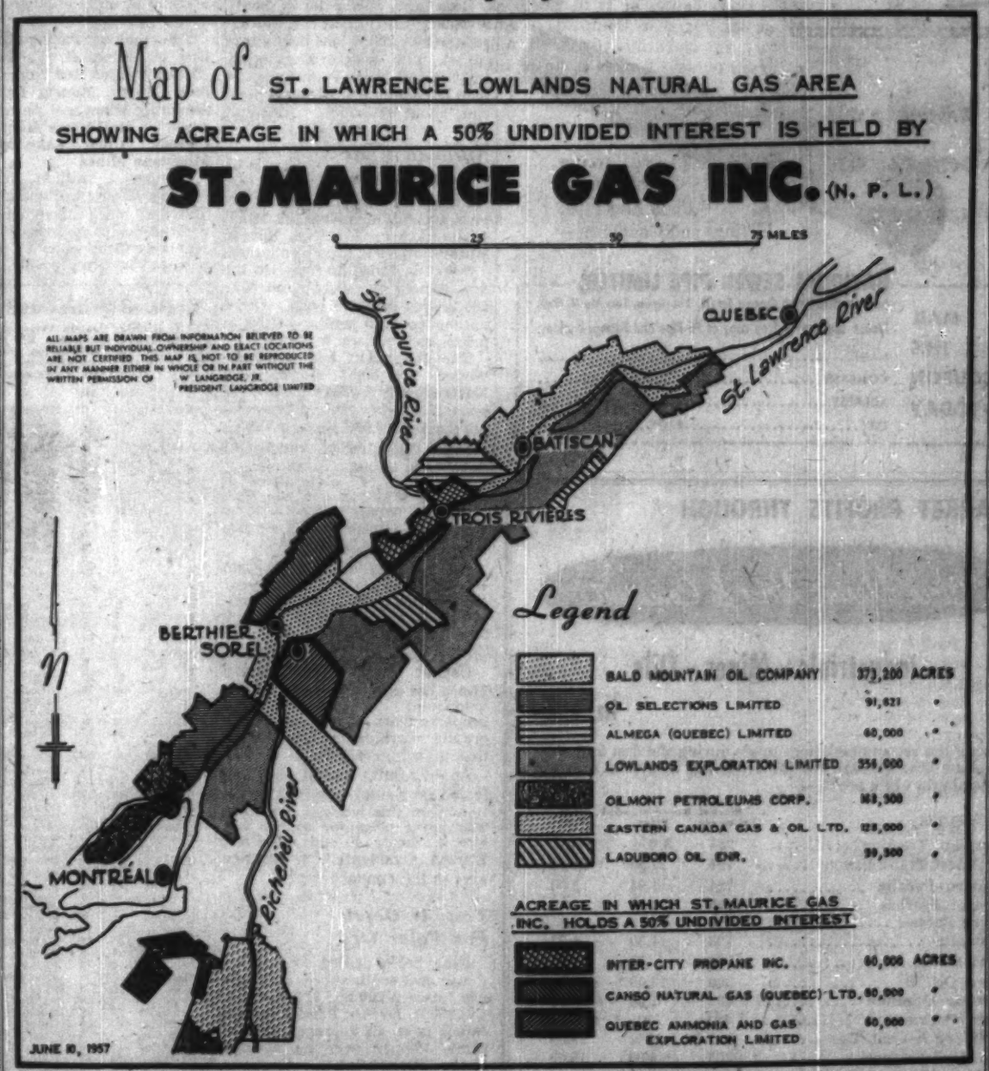


St. Maurice Gas, jointly with Canso Natural Gas plans to start an exploratory drilling programme immediately on 180,000 acres of potential natural gas lands in the St. Lawrence lowlands of Quebec — an active area already returning successful results.

With 22½ miles of gas mains in Three Rivers, a fully equipped gas distribution plant, a propane bottling plant, ample storage facilities and a fleet of trucks, the company is presently marketing propane gas to meter accounts in Three Rivers and cylinder gas accounts in Three Rivers, Grand'Mere, Shawinigan Falls and Quebec City.

Listed on:
The Toronto Stock Exchange and Canadian Stock Exchange, Montreal

ST. MAURICE GAS INC. (N.P.L)
Suite 700, 455 Craig St. West, Montreal, Que.

ANNOUNCEMENT

DOUGLAS H. DEAN

The Marine Office of America announces with pleasure, the appointment of Mr. Douglas H. Dean as Assistant Manager of the Canadian Department at Toronto.

Taking Stock

What's going on in the mining and oil markets — the facts and rumors.

BY RAY MAGLADRY

Base metal stocks that have been declining most of this year show some signs of reversing the trend.

Even another price cut in lead fails to dampen some buying particularly in senior issues, and a few lower-priced producers also join the technical recovery after many weeks of softness.

Investors feel the big producers, with good grade ore and adequate finances, can best weather the current depressed conditions in copper, lead and zinc, brokers say.

This table shows recent market action of some senior and lower-priced base metal issues:

	Latest Price	Week's High	Week's Low	1957 High	1957 Low
	$	$	$	$	$
Brunswick	8.15	8.50	8.05	12.00	8.00
Cons. M & S	24	24¾	23¼	28¾	23
Cons. Sudbury	2.05	2.40	1.98	3.50	1.98
Galkeno	1.01	1.18	1.01	1.30	1.01
Geco	15½	15½	14½	18⅞	14¼
Golden Manitou	1.15	1.20	.83	2.10	.85
Hudson Bay	67½	69½	63	86½	63
Noranda	50½	50¾	49½	57½	47
Opemiska	12⅜	12½	11½	14¾	9.35
United Keno	4.40	4.70	4.30	6.40	4.50

* * *

THE BUZZ IN BOARD ROOMS—is that copper may be heading into a further period of price weakness. Analysts point out the custom smelter price is still 2c below the primary producer level, a spread that usually means a drop for primary copper. Also, the price continues weaker on the London Metal Exchange.

Some buying, however, comes into speculative, lower-priced copper stocks briefly although the list is irregular. **Copper Rand** climbs to $4 from $3.55, later slips to $3.50, **Chibougamau Jaculet** is mildly higher, rising to $2.41 from $2.26, settles at $2.20, and **Consolidated Halliwell** edges up from $1.03 to $1.10, settles at 98c later.

Bethlehem Copper, reporting large tonnage of low grade ore, moves to $1.85 from $1.77, settles at $1.80. **Bouzan Mines** sells off on news that **Noranda Mines** will not take up shares under already-extended option deal. Bouzan dips to 48c from 72c.

* * *

Rumor-spiced market for stocks of companies in the Mattagami Syndicate slides off after an active flurry and higher prices. Six mining companies share interest equally.

The syndicate attracts interest on reports of a copper-zinc discovery in northwestern Quebec. With interest in syndicate, **Leitch Gold Mines** climbs to $1.60 from $1.21, but slides off later to $1.14, **Area Mines** traces same pattern in rising from $1.20 to $1.85, then easing back to $1.10 in heavy trading.

Also riding the Mattagami interest, **Highland Bell** climbs from $1.45 to $2, settles at $1.51, **Iso Uranium** moves from 43c to 77c, settles at 45c, **Teck-Hughes** up from $2.53 to $2.69 then slips sharply to $2.11, and **Dome Mines** which rises from $12¼ to $14¼, settles around $13.

* * *

Among senior mines, **Falconbridge Nickel** flips ahead from $35¼ to $37¾, settles at $36¾, in company with other issues in the **Ventures** group.

Ventures stock rises from $42⅝ to $44½, slips to $43½. **McIntyre Porcupine Mines,** which makes a new high at $115 recently, slips back to $110 under profit-taking. **Frobisher** edges ahead from $2.70 to $2.85, settles at $2.80.

Iron ores, market leaders in recent sessions, are a little softer. **Hollinger** easing from $35¾ to $33¾, **Labrador** slipping from $23¾ to $23, settles at $23⅛ and **Steep Rock** selling down from $22 to $20½, later moving back to $21¼.

* * *

ON THE OIL AND GAS FRONT—The list turns softer after a series of prolonged gains but, one popular index, is still about 25% over start of the year.

Fargo Oils features the group briefly with a climb from $6.60 to $8.30, settles at $7.10. Stock has come up from around $2.90 earlier this year. Company recently staked location for exploratory test on farmout land, six miles northwest of Acadia Valley townsite, seven miles south of Sibbald area gas production and about three miles southeast of another gas well.

A strong spot is **Midcon Oil & Gas** climbing to $1.62 after selling down from $1.66 to $1.47 on a rumor that first well of the season was unsuccessful. Company reports it reached gas at anticipated horizon.

MIDRIM MINING has proven reserves of 37 million tons on its rock salt property in southwestern Ontario, the annual report for 1956 indicates.

The high grade salt appears at 1,665 to 1,700 ft. while there is a bed of less pure rock salt at a higher level showing an average thickness of about 100 ft., the report says.

Production and financing plans are being concluded now.

Midrim's subsidiary **Sturdy Mines** carried out extensive diamond drilling of its property near Sudbury in the year.

Midcon Reports Success in First Lake Erie Well

The first successful well in what could be a 50-well season is swinging attention toward the humming offshore gas drilling field along the Canadian side of Lake Erie. (FP, May 4.)

Midcon Oil & Gas reports its first well found gas on its 14,000 acres held under license. Details of the well are awaiting tests.

More than one million acres of Lake Erie, from the Niagara to the Detroit Rivers, have been taken up under permits covering underwater exploration. Acreage ranges from two to 17 miles off the Canadian shore.

Consolidated West Petroleum, pioneer operator in the field, plans to drill about 30 wells this season —16 for itself and 14 for others.

The company has 34 gas wells capable of producing, the result of several seasons of exploration off Port Alma.

Britalta Spreads Its Wings Now In Ontario, Venezuela

Britalta Petroleums is spreading its interests into Ontario and Venezuela.

An interim report to shareholders discloses:

—Acquisition of **Colonial Petroleums** which is producing from two gas wells and three oil wells in Ontario and holds oil and gas leases on more than 6,000 acres.

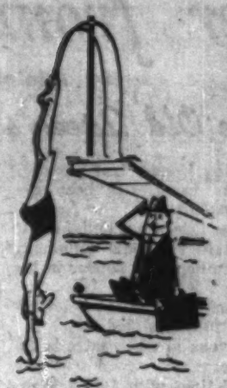
—Acquisition of leases on an additional 2,000 acres in Ontario.

—A preliminary agreement to acquire a ¼ undivided interest in 21 exploratory licenses covering 100,000 acres under Lake Erie of Essex County.

—Participation to the extent of $150,000 in a 25% interest in an oil concession covering 25,000 acres in Lake Maracaibo, Venezuela.

Britalta will issue 35,000 shares to acquire Colonial which will become a wholly owned subsidiary. Robert L. Reed, president, points out that wellhead price for gas in Ontario is 35c per MCF, more than triple current Alberta price, and crude oil price received by Colonial is $3.48 a bbl., substantially more than average price in Alberta fields. An extensive gravity meter survey is planned to be followed up with exploratory drilling.

Interest in Venezuela is held through **Britalta Venezolano,** a wholly owned subsidiary. Britalta participates with private U. S. investors in a limited partnership which has been formed to acquire and develop the Lake Maracaibo interest. After recovery of development costs by the general partner — **San Jacinto Venezolano** — Britalta Venezolano will recover up to seven times its investment out of specified proportions of production and will share proportionate to its investment in an undivided one third of the 25% working interest, Mr. Reed reports.



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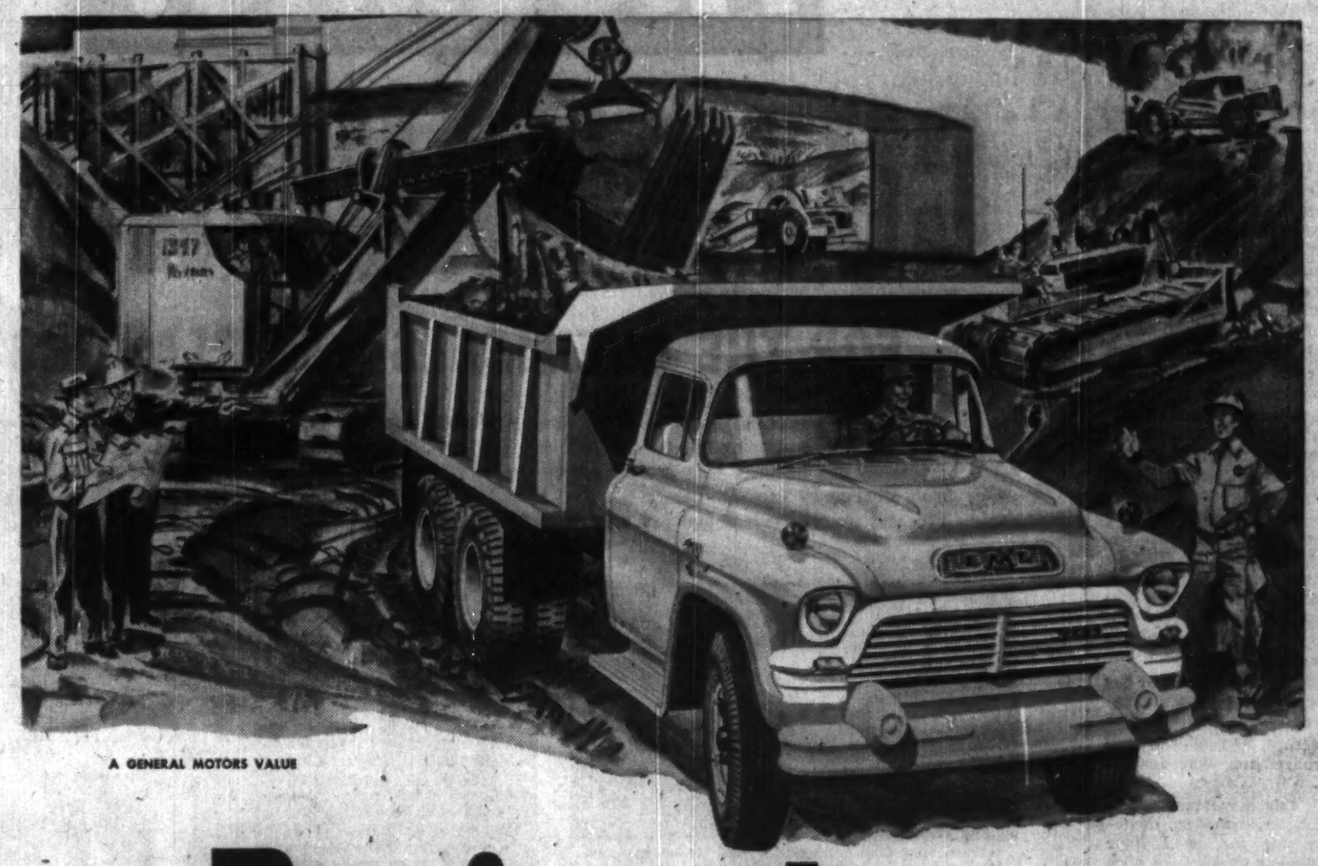

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Elect J. L. Ramsell President Of Ontario Mining Association

J. L. Ramsell, manager of **Kerr-Addison Gold Mines,** has been elected president of the Ontario Mining Association. R. D. Parker, vice-president and general manager of **International Nickel,** is vice-president of the association.

Other directors are:

J. C. Adamson, vice-president Lake Shore Mines.

C. M. Beck, assistant general manager Algoma Ore Properties.

R. A. Bryce, president Macassa Mines.

E. G. Crayston, general manager Madsen Red Lake Mines.

J. M. Cunningham - Dunlop, president Nipissing Mines.

M. S. Fotheringham, president and general manager Steep Rock Iron Mines.

K. C. Gray, vice-president and general manager, Sylvanite Gold Mines.

W. A. Hutchison, managing director Preston East Dome Mines.

R. C. Mott, vice-president (production) Falconbridge Nickel Mines.

J. A. H. Paterson, general manager, Mining Corp. of Canada.

E. A. Perry, manager Hollinger Consolidated Gold Mines.

R. V. Porritt, director Pamour Porcupine Mines.

M. L. Urquhart, general manager McIntyre Porcupine Mines.

Manitoba Starts Northern Highway Hope Link to Inco

From Our Own Correspondent

WINNIPEG — The Manitoba Government is starting immediate construction on the first 10-mile stretch of a new northern highway which it is hoped will eventually reach 200 miles north to connect with the new town of Thompson, site of the big **International Nickel** development at Moak and Mystery lakes.

A route has been chosen for a highway from a point south of Cranberry Portage to link with the Snow Lake-Wekusko road 68 miles northeast. Estimated cost is $2.5 million. The first 10 miles to be built this year at a cost of about $300,000 is to extend from Cranberry northeast to a point on Simonhouse Lake. An additional 58 miles is still required to connect with an existing road from Wekusko on the Hudson's Bay Railway Line to Snow Lake. From Snow Lake to the Inco development is about another 130 miles.

Negotiations have been under way for federal help to get the highway to Snow Lake with the idea of ultimately extending it to Thompson.

Oilmont Farmout Lowland Interest

Oilmont Petroleums Corp. has made a farmout agreement with **Okalta Oils** and **Oil Selections** covering its holdings in the St. Lawrence lowlands where drilling is to start early July, Oilmont officials say.

Development is continuing on the manganese property in Cuba in which Oilmont has 20% interest and where 60% manganese ore is being extracted and stockpiled, according to officials.

The company plans to open up some high grade surface showings on the property and also develop known veins to depth, they report.

Share Oils Buys Red Fault Mines

Share Oils has purchased all the assets of **Red Fault Mining & Oil Corp.** for 1,132,501 shares of Share Oils in exchange for 2,265,002 shares of Red Fault, C. H. Jones, Share Oils president, reports.

Following completion of this agreement, Share will have issued capital of 3.1 million shares.

Red Fault owns outright or controls varied claims in the Yellowknife and Lake Athabasca areas. Share Oil. has several mining properties as well as interests in oil and gas wells and acreage.

Company plans to diamond drill a property in the Marian Lake area, northwest of Yellowknife, and also has a more active oil and gas program planned, Mr. Jones says.

Letter from London

by Adelphi

Same Old Queen's Honors Row

Queen's Birthday Honors List has duly appeared and, as usual, has been denounced as unimaginative.

Those whom the Queen has delighted to honor do not share the view commonly held by those who hoped to appear in the list but failed.

To the fortunate ones the list is an admirable one and fully justified.

Certainly everyone in the theatre is delighted by the knighthood conferred upon that grand trouper Donald Wolfit.

In good weather and bad, before full and half empty theatres, he has played the Bard and almost nothing but the Bard.

He would act King Lear for a street corner crowd of children rather than not act it at all. In fact Sir Donald will bring dignity to knighthood.

Sir Thomas Beecham who inherited his baronetcy from his father half a century or so ago has at last been selected for national recognition.

He becomes a Companion of Honor which is both distinctive and selective.

The Daily Mirror beat an angry drum because the retiring editor of the Daily Express, Mr. Arthur Christiansen, was not given a knighthood.

But the policy of successive governments has been to reward the proprietors and leave the editors to fend for themselves.

Thus we have had as viscounts such proprietors as Northcliffe, Rothermere, Kemsley and Camrose. Beaverbrook could undoubtedly have been raised from a baron to a viscount but has always maintained that he was kicked upstairs to the Lords in the first war by Mr. Lloyd George who did not want him in the government or in the Commons.

Sir Horace Evans who has been Anthony Eden's surgical adviser is now raised to a peerage, and no one will begrudge him that distinction.

All this may seem out of keeping with modern democratic life but as I have pointed out more than once in FP the honors system costs nothing and it supplies the government of the day with a means of encouraging and rewarding public service.

So far democracy has not found a really workable substitute for it.

* * *

Suez Blamed For Tories' Win

Incidentally the week under review included the sensational defeat of the Canadian Liberal Government that was going to remain in power for ever and for ever.

The excitement in Britain was astonishing. A man from Mars might have thought it was a British election so intense was the interest.

Rightly or wrongly the British political experts, trying to assess the cause of the Canadian Government's defeat, attributed it partly to the under-current of "It's time for a change" plus the aftermath of Suez, which unleashed the old loyalty to Britain and the resentment against the pro-U.S. policy of Ottawa at the time of the crisis.

This may or may not be an accurate reading of cause and effect, but I am merely describing the British reaction to one of the most sensational election results for many years.

Inevitably the many friends of George Drew over here were sorry that he was not the Leader of the victorious Conservatives and their allies.

As a soldier, a politician and an unflinching friend he had won a big place in the affections of the British nation.

Automatically there were rumors that Colonel Drew would soon be offered the post of High Commissioner in London and it would certainly be a very popular appointment over here.

But nothing can atone for the failure of his life's dream of leading a Government at Ottawa.

* * *

By an odd coincidence on the day the Canadian election result was made known there was a magnificent performance of the five hour opera "The Trojans" at Covent Garden.

The star draw was Jon Vickers, the Canadian tenor, who has been the sensation of this year's London season.

During a conversation at half time with David Webster, impresario-in-chief of Covent Garden, he predicted that in five years' time Vickers would be the greatest tenor in the world.

And now for the link-up with the Canadian election. Jon Vickers who comes from the Canadian West, was one of eight children and the family was not only befriended by Mr. Diefenbaker but he offered to adopt Jon and a younger brother.

In fact Mr. Diefenbaker has been most helpful to the rising operatic star from the Prairies.

* * *

Exchequer Gets Banker's Legacy

Now since FP is traditionally devoted to finance I would like to call your attention to the strange will of banker James de Rothschild who died in London a month ago.

This remarkable member of the famous banking family was a Liberal Member of Parliament for many years and at all times in the Chamber wore his silk hat.

In a million to one accident on a golf course in France he lost an eye, and forever afterwards wore a monocle over the blank eye.

He liked to play bridge at high stakes but he was more interested in playing the hand than winning the rubber — a weakness which did not always find favor with his partners.

Now for his will which has just been published. He left no less than £11 millions.

The duties levelled upon it by the State and duly paid are just over seven and a half million pounds.

He left some modest sums to his servants and to Jewish charities and some valuable Old Masters to the National Trust but the big gainer was the Chancellor of the Exchequer.

It was not vanity that made him leave so vast a sum, although one wonders why he did not distribute more of it to charities or foundations.

The most plausible explanation is that he did not know the extent of his own wealth and was not particularly interested.

But then he came of a remarkable family which built its fortune on the Battle of Waterloo.

The Rothschilds had arranged a relay of horsemen from the battlefield to the nearest port where a cutter was waiting to carry the news to a waiting corps of riders extending from the port of London.

The message, thus relayed, was simplicity itself: "Buy English securities."

In other words the Rothschilds got in on the ground floor and never left it.

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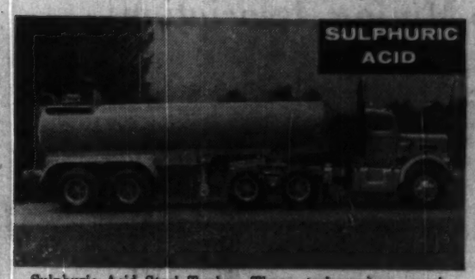

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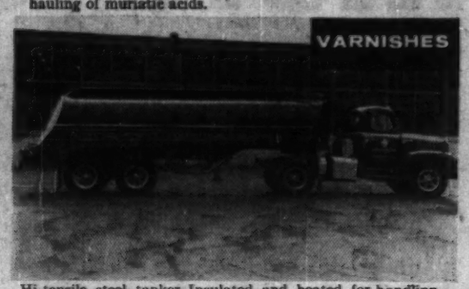

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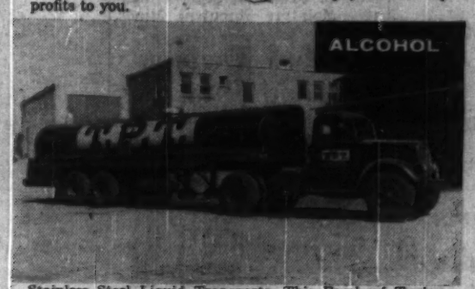

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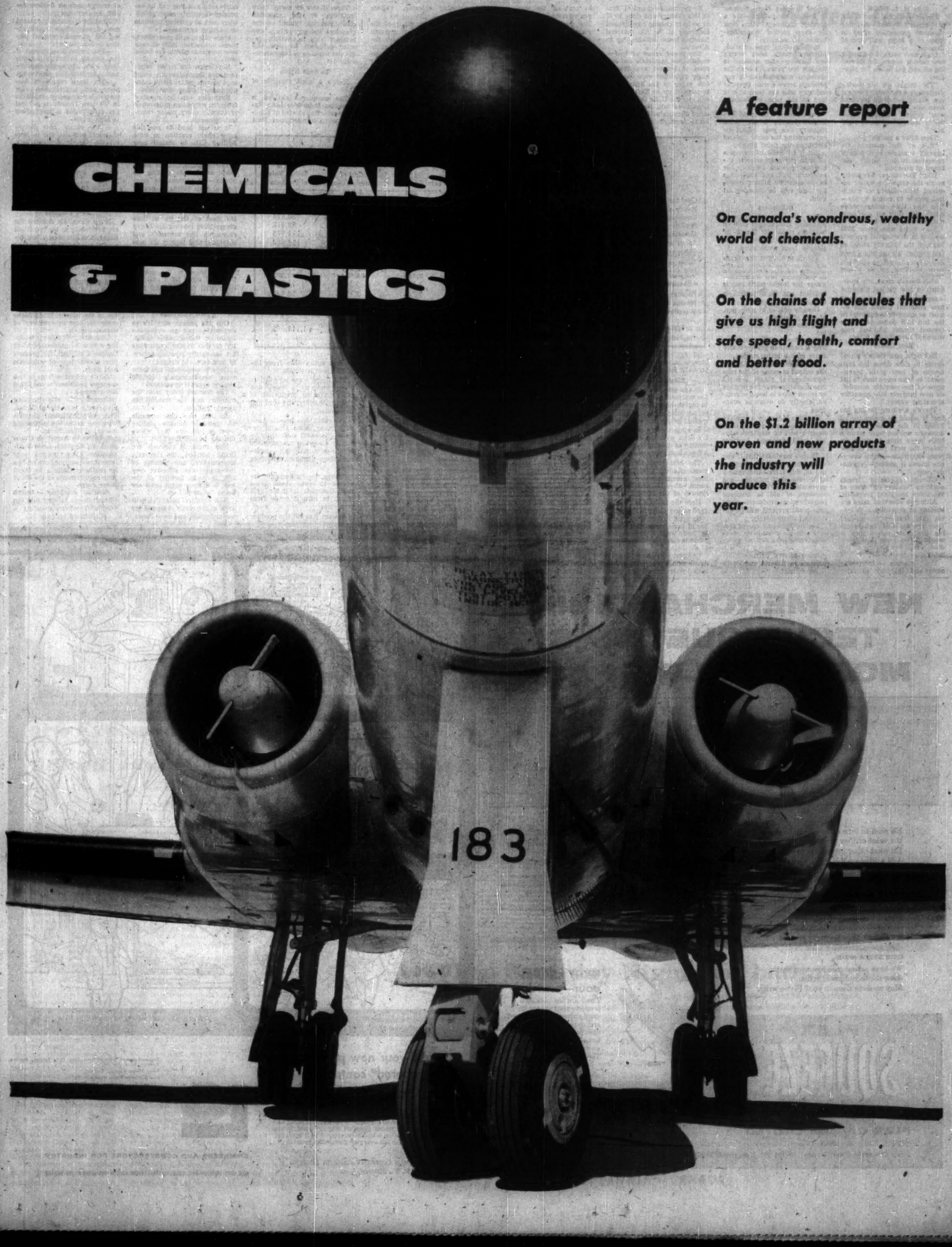
CHEMICALS & PLASTICS



A feature report

On Canada's wondrous, wealthy world of chemicals.

On the chains of molecules that give us high flight and safe speed, health, comfort and better food.

On the $1.2 billion array of proven and new products the industry will produce this year.

Wave of Expansion on Horizon

Slowdown 'Only Breather'; Growth Spurt Ahead

By W. L. DACK

The development head of one of Canada's fastest - stepping chemical companies stood in front of a large wall-map of Canada.

On it were marked the major new mining camps, the spreading oil and gas fields, the pipelines.

"The things we see taking shape across here over the next few years," he swept his hand from west to east, "makes our new project decisions look pretty momentous to us right now."

Then after a pause.

"But at the moment we haven't a single new project recommendation before our board of directors."

Why? The answer was pretty much the same the writer received from dozens of chemical people in recent weeks—"for the time being we've caught up with all our most obvious new plant bets."

Five years and some $500 million in new capital projects has shot the industry ahead so fast that an almost unanimous desire for a breathing spell has been building up in recent months.

This doesn't mean any slowdown in new project planning—actually the wave of some 36 new chemical plants and almost as many new products in the last half dozen years has created almost limitless new chemical jumping-off places.

Real Desire

But right now there's a real desire to slow down the high tempo of new plant investment; to take more time to get some of the recently completed new projects into smoother operating waters.

There's a strong feeling too that it would be better for all hands in the industry if the domestic market were given a little more time to catch up before the next round of new plant expansion—which everyone knows is coming—gets under way.

Current operating trends could be "cooling off" some of the more marginal proposals.

Although chemical sales are holding at generally high levels this year—some product lines are up—this isn't bringing the same reassurance it would have even last year since profits are starting to lag behind.

The reasons — increasing costs and inability to raise prices to meet them because of keener competition—are a greater argument than ever for even further diversification in the industry.

In the rolling type of readjustment that's been hitting one industry after another in the last few years it's been the chemical manufacturer whose products serve a wide range of industry who has been able to turn in the most consistently healthy earnings record.

For instance, a chemical firm hitched heavily to the paint industry this year would be experiencing the same general slump as the paint people.

But if he could balance this off with say resin sales to the buoyant plastics industry, or sulphuric acid and explosives to the dynamic mining industry he'd still be going great guns.

Difficulties

But even diversification is becoming increasingly difficult because most of the basic larger-volume projects have already been undertaken.

The more obvious new product moves are mostly in the organics chemicals field—based on petroleum raw materials—where the initial plant cost is heaviest and tariff protection the smallest.

Usually one, or at most two, of such plants can readily look after the entire domestic market.

But there's little assurance they'll be able to get the major share of the home market.

At present close to 50% of the output of many of the new petrochemical plants brought into operation over the past six or seven years is being exported, chiefly to overseas countries.

But this is largely a fugitive and unprofitable type of business; a sort of stop-gap market until domestic business opens up.

There's no doubt that if any worthwhile protection comes out of this fall's tariff review of the chemical industry—and particularly if it offers any measure of aid to domestic petrochemical producers—some new plant projects will be announced immediately.

For instance any one of several possible changes in operating conditions, such as a tariff move, could easily spark a number of new petrochemical projects in Alberta and Peace River district.

Every major chemical firm in this country and close to 12 or so from outside have looked longingly at the raw material treasure-house building up in Alberta.

The broad range of hydrocarbon raw materials and sulphur to become available in huge quantities over the next few years as gas distribution is stepped up to Eastern Canada and the U. S.; the plentiful amount of salt, limestone and other chemicals—will supply a broad enough raw material base to support production of virtually hundreds of products.

Plans Postponed

But in practically every case the companies are being forced to pigeon-hole these new project developments because of market limitations at this time.

In almost every case though it's been with the express intention of dusting them off for a fresh look every year or two.

The best hope for the domestic producers—the only one most companies are able to count on—is the natural growth of the home market.

Here the outlook is about as good as anywhere in the world.

So good in fact that a number of firms have been willing to "jump the gun" in new plant projects a good deal in advance of markets.

"Biggest nightmare haunting development people these days is that your competitor is going to 'grab off' the new projects you've researched for years before you've had time to get your board of directors to act," the development head said.

Top chemical authorities in recent extensive market surveys have forecasted an increase in chemical production in this country of between three and four times—close to $4 billion—by 1975.

(The new peak established in the year just ended boosted over-all output in the chemical and allied industries to $1.12 billion.)

While sizeable increases would take place in every branch of the industry the most dynamic growth would be chalked up by plastics fabrication where the consumption of chemicals would soar an estimated 10 times by 1980.

Reflecting increasing chemical metallurgy in metals recovery this outlet would boost its chemical requirements by an estimated 5.3 times in the same period.

Foods and food packaging would expand as a market for chemicals by a little over four times; textiles would use four times as much chemicals.

But over the near term chemical market experts see the biggest expansion again swinging back to basic chemicals largely serving natural resources industries.

Products like sulphuric acid ammonia, chlorine, caustic soda.

That's why in many of the recently stepped - up research programs in this country development people are being instructed to study ways of allying their companies more closely with the fast-moving mining and ore processing field, oil and gas industries, pulp and paper.

Recently two petrochemical firms in this country with operations based chiefly on ethylene jumped into first Canadian production of ethanolamines—one of the major chemicals used in purifying natural gas for delivery to pipelines.

With two major gas pipelines drawing heavily on sour gas fields the market potential in this product will be large. Another big firm whose chief product is hitched largely to the slowed-down textile industry is diversifying boldly into explosives.

Another firm with eyes largely on the huge pulp and paper industry and exciting new process trend they see developing there have expanded hydrogen peroxide and ammonia making facilities.

There'll also be many more instances of the economic chain reaction typical of the chemical industry where one product leads to another, creating demands for new and greater supplies of basic chemicals.

To Spin Nylon

Here's a good example of this.

The company involved is **Canadian Industries Ltd.**: Nylon production started at Kingston when a plant was built to spin nylon fibre from imported raw materials.

The fibres were supplied as a raw material to textile and other mills for production of clothing, hosiery, tire cord and parachutes.

The chain thus branched out with many links. Finally demand increased sufficiently to justify Canadian manufacture of the raw materials—hexamethylene diamine and adipic acid.

Among the ingredients required to make these nylon raw materials is nitric acid which in turn is made from ammonia.

A plant was built to produce nitric acid and this can be expanded to supply other industries, such as refining uranium or making explosives.

More nitric acid necessitates more ammonia and already new ammonia plants are being built.

Now even the nylon intermediates themselves are being used as raw materials in manufacture of other chemicals.

Examples can be supplied from the expansion program of practically every major chemical company.

It is not hard to see this same chain reaction in time leading CIL to install new plants for production of basic raw materials for its new Terylene production; or **Ethyl Corp. of Canada** putting up plants — or encouraging erection of such plants at nearby Sarnia points for first Canadian production of ethyl chloride and maybe later, sodium; **Du Pont of Canada** in time diversifying into certain heavy chemicals like ammonia and sulphuric acid largely for captive use in its own synthetic fibres and explosives operations.

Then there is the growth that will come from still undiscovered products and new market applications of other products.

New Creations

One big reason why it's so difficult to put an expansion figure on this dynamic industry is that research chemists are constantly creating entirely new forms of matter.

Only three decades ago there were approximately 100,000 known organic chemicals.

The number today is in the millions and the possibilities appear endless.

Exciting new developments on the fast moving plastics front is just one field where the sky is still the limit.

New chemical methods are being applied to recovery, beneficiation, and refining of low-grade ores; effective new aids to boost fertility of the soil, to destroy plant pests are being "whomped up."

New chemical potentials will arise as the ocean is tapped for raw materials, and new forms of energy such as nuclear fission, are harnessed.

What are the most important new developments highlighting the current chemical picture in this country?

—The tremendous impact of the mining industry, particularly from chemicals requirements for uranium processing.

—The huge supply of sulphur and hydrocarbon raw materials becoming available in Western Canada as natural gas distribution is stepped-up to high levels.

—Two major new petrochemical projects, one in Sarnia, the other in Montreal East. They can be expected to have quite an influence on decisions and locations of new plant projects over the next few years.

—The multi - million - dollar potash development now assured for Saskatchewan.

Five Projects

Huge chemicals demand for ore processing at the big Blind River uranium camp has already sparked five important new plant or expansion projects.

Noranda Mines is soon boosting its $10 million sulphuric acid plant at Cutler, Ont., to a 1,000-ton daily output.

Entire production will go to a number of uranium producers in the nearby Blind River camp for use in recovery of uranium oxide.

Canadian Industries is building a new $3 million plant at Copper Cliff, Ont. for production of 300 tons of sulphuric acid daily.

Entire output will go to two uranium producers in the Blind River camp.

Company is also boosting nitric acid capacity at Nobel, Ont., with additional supplies all going to the ore processing market at Blind River.

Both **North American Cyanamid** and **Gypsum, Lime & Alabastine** have opened new limestone quarrying operations in southern Ontario to boost lime requirements of the Blind River camp.

Another company — **Huron Chemicals**—is looking into the possibility of constructing a

(Continued on page 51)

Our Chemical Industry — 1956

	Plants	Employees	Total Earnings	Cost of Materials Used	Gross Selling Value of Products
				$ '000	
Coal tar distillation	11	528	2,155	8,020	12,960
Heavy chemicals	47	8,912	40,468	83,361	192,606
Compressed gases	52	1,379	5,035	3,405	20,826
Fertilizers	44	2,965	11,702	42,611	82,818
Medicinals and pharmaceuticals	211	7,859	25,983	37,683	121,995
Paints and varnishes	126	6,167	21,770	63,053	126,924
Soaps and washing compounds	144	3,750	14,576	46,001	109,278
Toilet preparations	90	2,193	6,212	15,658	38,062
Inks	33	993	3,723	6,641	15,784
Vegetable oils	12	675	2,558	36,936	42,393
Adhesives	28	596	2,156	5,349	11,759
Polishes and dressings	47	818	2,746	9,534	20,540
Plastics (primary only)	25	3,252	14,002	44,657	82,643
Miscellaneous*	250	12,422	46,474	115,435	234,007
TOTAL	1,120	52,509	199,560	518,344	1,112,595

*Includes explosives, synthetic rubber, insecticides, matches, dry colors, etc.

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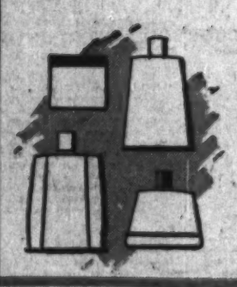

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Petrochemicals Industry

More New Projects on Planning Books

There comes a time when even the companies in the fast-moving petrochemical field must pause to catch their breath in the phenomenal post-war expansion race in this country.

Some two dozen new plants representing a capital outlay of over $300 million in seven years is a record even the petrochemical people themselves would have deemed fantastic at the end of World War II.

Even now the slow-down in new plants development doesn't mean any reduction in number of new product projects under study.

It's just that for the time being most of the companies have caught up with their most attractive looking undertakings — all the most obvious postwar bets in the Canadian petrochemical field have now been translated into new multi-million dollar plants, completed or currently under construction.

Not one of the companies are looking on this interval as anything other than a breathing spell — a brief period in which to digest the heavy post-war spending spree on new plants to make new products; to permit the Canadian market potential to build up a little more for a new round of expansion.

The petrochemical planners fully believe that the industrial momentum that has been gathering force for several years will keep the Canadian economy rolling along at a rapid clip.

This in turn must mean more and diversified industry in this country requiring more and more diversified chemical raw materials.

It's an industry that's growing much faster than the main body of industry because it's gradually penetrating all industry with its multiplying array of new products.

It's a comparatively young industry and its rate of discovery both in the basic and application field is far greater than that of any other industry supplying raw materials.

Modern Living

Right now petrochemicals find use in almost everything that is a part of modern living. Their amazing end use diversity comes from a continuing penetration of other industries.

This penetration may take place (1) by replacing natural materials in applications where the synthetic product has superior properties (2) by replacing natural materials in applications where the properties may not be better but where it has an economic advantage, and (3) by creating new uses for which no existing material is suitable.

Examples of materials going into the "replacement" market category are synthetic fibres, synthetic rubber and detergents.

This market has up to the present time been more important than the "new" market category, e.g., anti-knock agents, fertilizers, insecticides.

This new market category, however, could keep right on expanding indefinitely but products going into the replacement category will have to slow down as they approach the ultimate ceiling for the particular type of products involved.

For example, there is a definite ceiling for the replacement of natural rubber with synthetic rubber and the replacement of soap with synthetic detergents.

But plastics are an exception because they replace such materials as steel, wood and glass for which there is, for practical purposes, no ceiling.

Plastics and resins — major petrochemical items — have shown a tenfold growth in North America over the past 15 years.

Production now exceeds four billion lb. per year and future looks as bright as ever for a continuation of this expansion trend.

What is the immediate outlook for petrochemicals in Canada?

In 1956 estimated production was 800 million lb. having a value of approximately $143 million.

This compares with 35 billion lb. for the U. S. having a value of $4.2 billion.

On a per capital basis production works out at 50 lb. per year in Canada against 200 lb. in U. S.

This places Canada in about the same position in regards to petrochemicals production as was the U. S. at end of World War II.

But Canada did not get into the business until early 1940s and has been handicapped ever since by relatively small markets which, without some of capacity going into export, would not support an economic size plant.

It is fully expected now that the gap in the per capita production between the two countries will be continuously narrowed.

Right now market analysts are predicting that the U. S. production of petrochemicals will approximately double in the next five years.

Canada is expected to at least equal this performance and will probably exceed it.

But right now despite the acknowledged bright future for petrochemicals there is an inclination to slow down somewhat on new plant commitments in this country and await developments of the next few months.

One of these "developments" is the complete tariff review of the Canadian chemical industry this fall.

The findings of the Tariff Board, whatever they are, are going to have an important impact on the timing of new petrochemical projects.

Here's why:

Domestic Market

More than any other segment of the chemical industry petrochemicals depends on acquiring bulk of the domestic market.

Majority of the new plants built the last few years have capacity to supply all of the domestic market and economics of the projects have been based on this potential.

To have to share this home market with imported products works more than proportionate hardships on the companies involved since unit costs rise sharply with dropping output rate.

Canadian petrochemical officials have anxious eyes on the chemical giant to the south.

They know what can happen — and is happening — when sizeable surpluses build up there, e.g., ammonia, ethylene glycol, polyethylene.

Since it's disastrous to unit costs to cut domestic plant runs, every price reduction there must be met immediately here to the point of "no return."

All of which points up the increasing need for product diversification in this industry—the spreading of one's production eggs into a number of baskets.

In the type of rolling re-adjustment that has become associated with the postwar era there are always one or two industries undergoing difficult times.

It has become particularly characteristic of the petrochemical industry that several good revenue products must help carry the hard-hit products affected by the depressed industry customers.

The point then is to serve a wide enough range of industry so that over-all operations will not be drastically hit by reduced demand for certain chemicals from any one or two of these industries going through cycylical upsets.

This is a good deal easier said than done.

Petrochemical plants usually involve costly, complicated

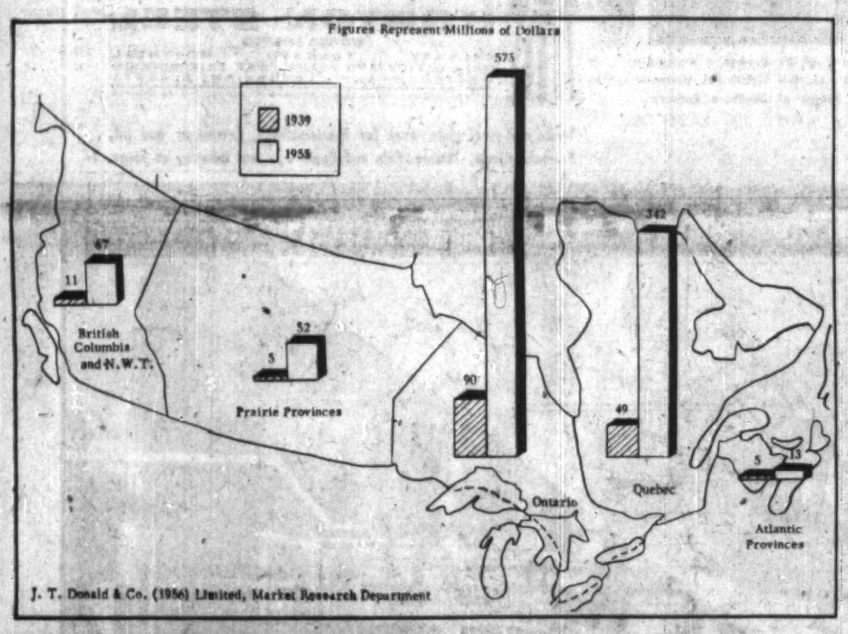
(Continued on page 52)

Petrochemical Growth Story

Growth Picture of Selected Firms Comprising the Petrochemical Industry ($'000)

Year	No. of plants	No. of employees	Salaries and wages	Cost of Materials	Cost of Fuel	Gross selling value of products
1947	3	2,366	5,391	9,379	2,485	24,896
1948	3	2,386	5,857	12,097	3,036	30,340
1949	3	2,635	6,904	15,326	5,279	38,462
1950	3	2,731	7,774	18,595	6,334	50,466
1951	3	3,069	10,300	21,925	6,867	64,871
1952	5	3,344	12,156	24,395	7,482	67,187
1953	13	4,124	15,908	30,103	8,504	78,050
1954	13	4,642	19,520	41,817	9,955	99,450
1955	13	4,751	20,425	48,790	10,194	127,104
1956	14	5,100	23,207	62,914	11,514	143,650

Chemical Output by Areas



More Expansion

What the Industry Sees Ahead

(Continued from page 50)

chemical plant at Cutler, Ont. to produce sodium chlorate, also for the uranium processing requirements.

In the far northern Beaverlodge uranium camp **Gunnar Mines** has built its own plant to supply its sulphuric acid requirements.

Removal of sulphur from sour gas in Western Canada, once the two major natural gas pipelines are drawing heavily from the Alberta gas fields, is estimated to reach around one million tons yearly.

Coming From U. S.

This is close to three times current consumption rate here, practically all of the sulphur coming from U. S. imports.

Faced with long rail hauls to the big eastern pulp and paper market the sulphur producers will have some early marketing problems on their hands.

Construction has just gotten under way on a unique petrochemical project at Sarnia, Ont.

The new $28.5 million plant of **Imperial Oil Ltd.** to recover such hydrocarbon products as ethylene, propylene, butylenes, butadiene, aromatic tars, etc., is expected to have a major impact on the direction of new petrochemical expansion in Canada's Chemical Valley.

The integrated chemicals and polyethylene plant of **Union Carbide Canada,** now virtually completed at Montreal East, with its "built-in" flexibility for manufacture of numerous new chemicals is expected to help carry Canadian industry another step forward in its self-sufficiency drive.

The decision of two giants in the U. S. potash industry to establish major new potash recovery projects in central Saskatchewan virtually assures that the huge western deposits will become the second major supply source on the continent.

Potash Co. of America and **International Minerals & Chemicals** are both pushing large shafts down to the 3,000 ft. deep deposits with production expected by 1959.

Some 18 other smaller companies are also in the development picture with smaller acreage holdings in the province.

Decisions Retarded

Up to now limited markets and costly mining operations have held up decisions on development of the Saskatchewan deposits.

But now expanding markets and ready access to the central U. S. states are spurring production plans.

Not only will most of Canada's 45,000 tons-a-year consumption now be met from domestic sources but the Saskatchewan deposits will also figure in sizeable export operations.

The high level of industrial activity in 1956 was reflected in the record demand for chemicals in this country.

At $1,112 million factory shipments topped the previous 1956 record year by 6.6%.

Every group in the chemicals and allied industries section chalked up gains over the previous year but two—fertilizers and vegetable oils.

In the case of fertilizers a late, wet 1956 spring and slower government cash payments to western farmers reduced demand 10.5% at $82.8 million.

Vegetable oils dropped 15.7% at $42.4 million reflecting the increasing swing to use of marine oils and animal fats in production of bulk shortages.

Immediate Reaction

High industrial activity is always reflected immediately in stepped-up demand for heavy chemicals (sulphuric acid, ammonia, chlorine, caustic soda, etc.) which serve a broad range of industry and compressed gases used in metal-working, food industries, etc.

The former was up 11.8% at $192.6 million; the latter up 26.2% at $20.8 million.

Other chemical products showing promising shipments gains were medicinals, up 12.8%; coal tar distillation, up 9%; soaps, up 9.2%; paints up 8.3%, primary plastics, up 10.1%.

Trade in chemicals again resulted in a net deficit—$60 million in 1956, as against a deficit of $50 million the previous year.

Imports—mostly from U. S. —were up 10.8% at $288.6 million. But fortunately exports showed a healthy rise too, up 8.9% at $210 million.

Pharmaceuticals, synthetic resins, fine chemicals bulk importantly in Canada's chemical imports with most of the supply coming from U. S.

In the export field nitrogenous fertilizers (with **Consolidated Mining & Smelting Co.** the big factor) and synthetic rubber were the big items.

Some plastics — especially vinyls and polystyrenes—also contribute importantly to the export business.

Highlights of 1956 were the scattered export shipments of a number of chemicals including solvents, acetone, polyethylene to U. K., certain European and South American countries.

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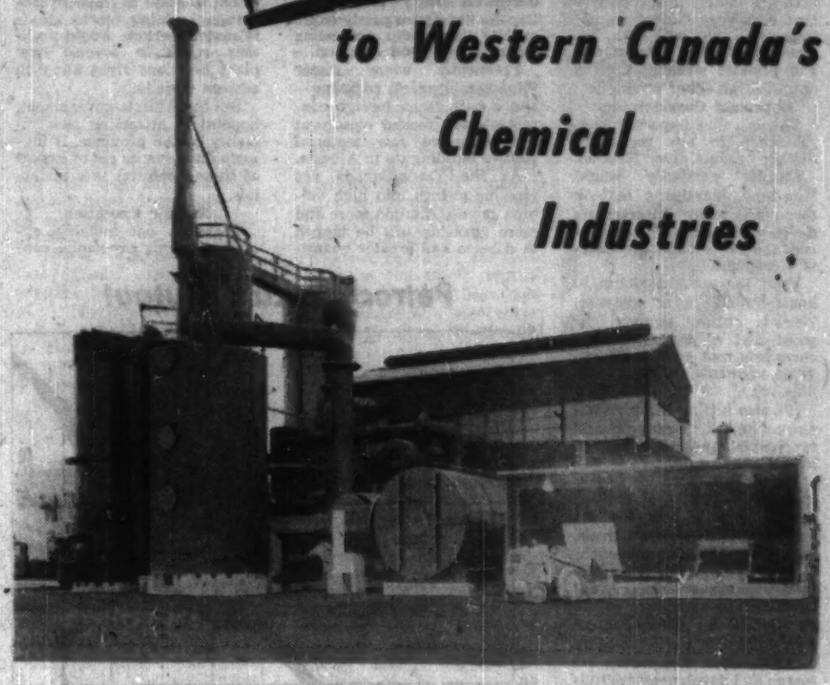

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Report on Petrochemicals

(Continued from page 51)

processes. Usually several different processes and products are closely integrated so that it is very difficult, if not impossible to cut back, or boost, production rate of any one product without altering output of all other products.

Important Consideration

This is a very important consideration in any plans for further product diversification.

Despite generally bright long-term marketing outlook there are many intermediate developments that can interrupt the pattern and affect certain products.

Take the current slump in house-building, for instance. This is cutting demand for paint and of course all the chemicals that go into it (solvents, pigments, thinners, alcohols, etc.).

It's also hitting the plywood market and this means demand for phenol and urea that go into plywood glues.

It's slowing down the household appliance market and this means phenolic handles for various appliances and utensils, various plastics housewares.

Because natural resources industries appear to have about as bright an expansion future as any in this country more and more chemical firms are directing their stepped-up research and development activities along these general lines.

The research and development heads are being instructed to investigate closely the possibilities of becoming more closely allied to these fast-moving segments of the Canadian economy; to look into the opportunities of producing more products to serve the oil and gas, mining and pulp and paper industries.

Already two firms — **Dow Chemical of Canada** and **Union Carbide Canada** — have jumped into production of ethanolamines via the broad ethylene petrochemical highway.

This product is used widely in natural gas purification and there will be heavy demands for it in western Canada as the **Trans-Canada** gas pipeline swings into high gear and draws on more and more gas from a wide variety of Alberta gasfields.

North American Cyanamid has installed a new plant unit at Niagara Falls, Ont., for first Canadian production of xanthates, a chemical widely used in refining of minerals.

Dow Chemical is also looking at this new product possibility.

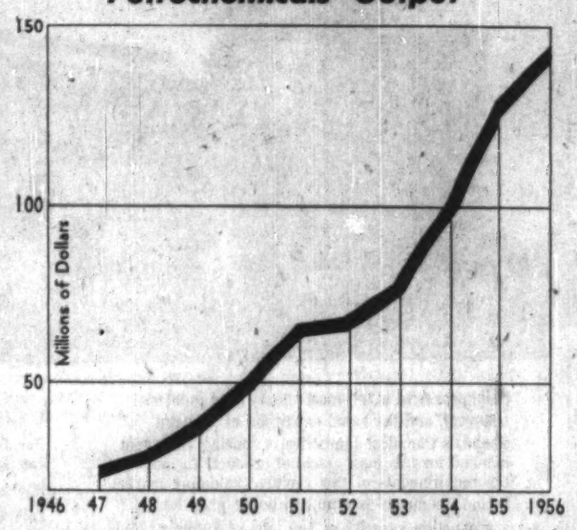
Du Pont of Canada (1956) is jumping into the explosives field with a new $8 million plant near North Bay.

Increased ammonia facilities of Dow Chemical, North American Cyanamid, **Canadian Industries Ltd.**, in Eastern Canada have been partly based on the large pulp processing market that could open up.

Practically every major Canadian chemical company—and a half dozen foreign concerns—have looked closely at the attractive raw material picture building up in Alberta.

As the Trans-Canada gas pipeline swings into high volume gas distribution more and more gasfields will be tapped in Alberta and greater quantities of wet hydrocarbon by-products recovered.

Petrochemicals Output



Huge Supplies

There'll be huge supplies of such all-important petrochemical raw materials as butanes, propane, ethanes.

Along with the heavy supplies of salt, sulphur and limestone available it will make this province one of the greatest storehouses of petrochemical raw materials in the world.

But company after company, excited over the raw material supply and price situation, have regretfully been forced to abandon new plant plans when a closer examination of markets and transportation costs have been made.

The markets within economic range — sharply limited by long, costly rail hauls to eastern Canada and virtually prohibitive tariffs into U. S. midwest—have been too small.

In most cases, however, these development studies have just been pigeonholed with intention of looking at them again within a year or two.

Low-cost pipeline transportation of some of these hydrocarbon building blocks closer to major markets would probably result in several new plant decisions right away in eastern Canada.

But the Alberta government, hopeful of attracting new industry to the province, is taking a dim view as yet of export of these potential raw materials.

Notable Exception

There is one notable exception among companies considering an Alberta plant site.

It's the case of **Polymer Corp.** — Canada's large-scale producer of synthetic rubber.

Polymer has been expanding so fast at its Sarnia, Ont. plant site that it has run out of its butadiene supply.

For over a year now it has been forced to import anywhere from 25%-35% of its supplies of this basic raw material from U. S.

Although substantial new supplies can be made available in the area from a new $28 million petrochemical plant to be constructed right alongside Polymer, officials have apparently looked favorably for a time on the economics of a new butadiene plant in Alberta that would look after company's requirements over the foreseeable future.

Company must first secure long-term purchase contracts for large quantities of butanes before it could make final plant construction move in the West.

Although the petroleum hydrocarbons on which this dynamic industry feeds come from both natural gas and refinery gas streams up to now most Canadian petrochemical plants have been based on refinery gas streams.

They have located in large refining areas close to plentiful supplies of the all-important "feedstock" mainly because of proximity to large-scale markets.

Montreal and Sarnia — the two largest refining centres in Canada — are the locations for more than half the Canadian petrochemical plants.

Important Switch

There is no doubt that an important switch to natural gas streams is coming but it may take two to five years more for this trend to get under way.

In the meantime as demand and price for these raw materials in suitable locations shoots up refiners are finding it profitable to install special equipment at their oil refineries to recover maximum quantity of these desirable hydrocarbons.

Major example of this is the new $28 million petrochemical plant of **Imperial Oil** now under construction near company's Sarnia refinery.

The new plant, to be closely integrated with refinery operations, will recover hydrocarbon raw materials from company's own expanding refinery operations and sell them to industry in the form of ethylene, butylene, propylene, normal butylenes, isobutylenes, butadiene, aromatic distillates and tars.

When these have been further processed by other companies they will end up in consumer's hands in the form of plastic objects, antifreeze, detergents, synthetic fibres, rubber objects and gasoline additives.

The substantial supply of these all-important raw material building blocks in the area is expected to prove a major new magnet drawing a variety of new chemical plants to Sarnia over the next few years.

Already at least three chemical companies are known to be studying Sarnia projects based on these raw materials.

Canadian Oil Co. is another example of an oil refining company making substantial capital expenditures to enable it to take greater advantage of the chemical market.

Company is installing a $3 million "Udex" unit at its Sarnia refinery to recover large quantities of benzene, toluene and xylene.

Long-term sales contracts have already been made for sale of a portion of these products to nearby petrochemical plants.

Small Percentage

Despite the fact that on this continent over 25% of all chemicals (organic and inorganic) and over 75% of all organic chemicals are now derived as petrochemicals, the percentage of petroleum and natural gas consumed is very small.

In 1956 in U. S. it amounted to only 1.2% by weight of the combined quantities of crude oil processed and natural gas produced.

In Canada it was less than 1%, but because in the petrochemical upgrading of hydrocarbons value is multiplied 10-15 times on the average oil and chemical companies will continue to look eagerly at opportunities to participate in the petrochemical field.

No one in the industry will even hazard a guess at the potential number and breadth of products that will in time come out of the futuristic looking plants going up at Sarnia, Montreal East, Edmonton.

Almost every month the research chemists boost the potential further by developing another consumer or industrial product out of hydrocarbon raw materials or recovering an entirely new chemical building block with exciting new product potentials.

In this day when petrochemicals are going into everything from tranquilizers to "bouncing" bottles and to "exotic" fuels for propulsion of guided missiles, who can say what tomorrow's creations will be.

Here are the operating highlights of the major petrochemical companies in this country:

B. A.-SHAWINIGAN LTD.

Company's major expansion program at Montreal East aiming at doubling plant capacity of acetone and phenol was scheduled for completion in June of this year.

This will boost capacity for phenol production to around 26 million lb.

In the process, acetone capacity will also be boosted from around 8 to 16 million lb.

A buoyant phenol market, reflecting high construction levels in this country, held throughout 1956.

Major outlet for phenol is in glues for plywood.

The demand is still holding at fair levels although the slow-down in housing is expected to reflect in reduced demand later in the year.

Canadian phenol demands have been growing every year and B. A.-Shawinigan — the only domestic producer — intends to remain in a position to handle bulk of the growing domestic market.

Big outlets are molding powders for resin producers. The resin in turn goes into many end products including such plastic items as telephones, pot handles, switch materials. Company has enjoyed some export in recent months.

The acetone market—usually the weaker of the two — has held up at good levels in last year with some export business helping the picture considerably.

Company has some flexibility with this product in that it can carry the acetone one step further, if markets warrant it, to isopropyl alcohol.

Company has also jumped into first Canadian production of nonyl phenol — probably most important of the alkyl phenols.

CANADIAN CHEMICAL CO.

Program for simultaneous production of acetate and Arnel, the new triacetate fibre, is proceeding on schedule at the big Edmonton petrochemical plant.

It is expected that company will be making deliveries of the new product in the fourth quarter of this year.

In petrochemicals, research is continuing to effect process improvements, increase efficiencies and yields, as well as to develop new derivatives of presently produced materials.

Modifications are now under way to enable greater and more diversified output.

The cellulose acetate plant at Edmonton is operating at a rate substantially in excess of design capacity and actual experience has shown that still higher rates of operation are possible when market warants it.

Export business is hampered at present by dollar shortages particularly in the U. K. and Australia and by unfavorable freight rates to Far East markets.

The company is, however, expanding its spheres of operation by exporting an increasing variety of chemicals to new areas in all parts of the world.

During 1956 construction of a service plant was completed at St. Jean, Quebec, which contains yarn beaming, coning and twisting operations and warehouse facilities, as well as application and customer ser-

(Continued on page 54)

In buying chemicals
the right move is to

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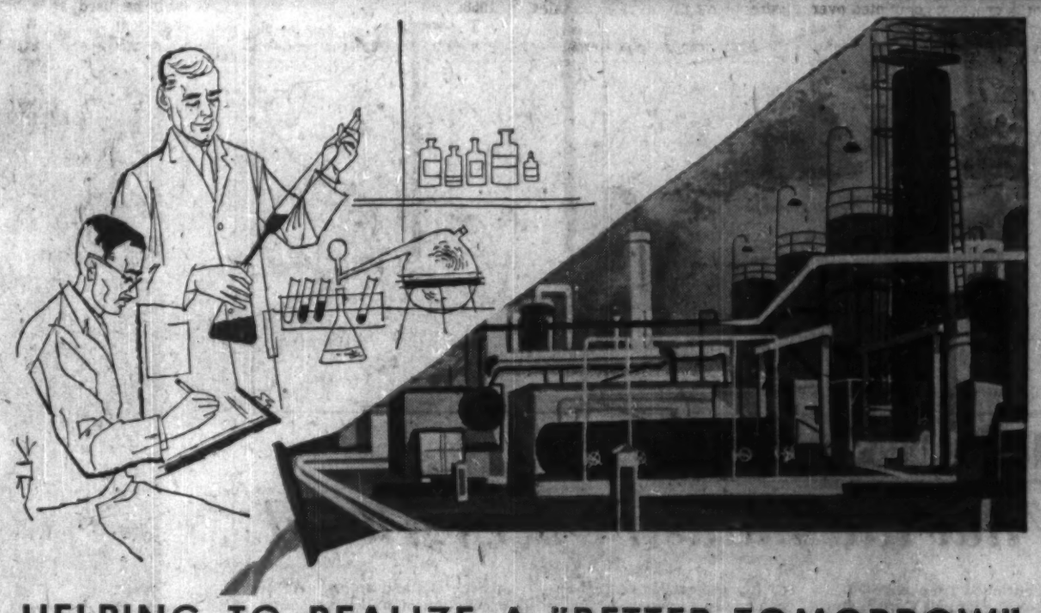


HELPING TO REALIZE A "BETTER TOMORROW" through Talent and Teamwork

Today, the research chemist must meet the challenge of creating virtually new worlds for us by means of new products and revolutionary processes.

Behind the scenes at Shawinigan, teams of highly skilled specialists are constantly at work developing chemical products, solving processing problems and finding new exciting uses for chemicals from Shawinigan.

Many of Canada's vital industries are benefiting directly from Shawinigan's successful combination of talent and teamwork. In turn, we all benefit . . . the factory-worker and the farmer, the home-maker and the horticulturist. Thus, whenever and wherever chemical research can help to create more good things for better living — Shawinigan will be there!

SHAWINIGAN CHEMICALS LIMITED

Head Office: Shawinigan Building, Montreal, Que.
Plants: Shawinigan Falls, Que.

Report on Petrochemicals Industry

(Continued from page 52)

vice laboratories to serve Eastern Canada.

For the first quarter of 1957 domestic sales of both chemicals and yarns were ahead of the same period in 1956, but export sales were considerably reduced.

Factors affecting immediate results are the discount on the U. S. dollar, exchange restrictions in export markets and increased wage and freight rates, not yet matched by increases in selling prices.

The Chemcell organization as a whole ended 1956 with a small net taxable profit for the first time.

CANADIAN INDUSTRIES LTD.

Canada's first polyethylene plant at Edmonton east is operating at a high level of capacity as the general Canadian market for this fastest-growing plastic continues to expand.

Although competition from a major importer has now been replaced largely with competition from this same company in a domestic manufacturing role officials see the outlook as quite bright.

Over-all domestic market has been growing at a 30%-35% a year clip and new applications and further expansion in established fields promises a continued growth for this plastic over the next few years.

Consumption in 1956 is estimated at 23 million lb.; forecasts are that this figure will rise to at least 30 million lb. in the current year.

The expanding premium on the Canadian dollar has been one adverse trend in the polyethylene marketing picture.

The 7½% tariff protection awarded in 1955 is now pretty nearly wiped out by the premium on Canadian funds.

This, coupled with the tremendous expansion in production facilities in U. S., poses a real import threat to Canadian producers.

DOW CHEMICAL OF CANADA

Is continuing its active expansion and diversification program at its big Sarnia plant site. Dow is upping capacity for virtually every one of its major products.

Included in a $5 million works program completed over past year were expansion of facilities for making ethylene, chlorine, polystyrene and a new unit for production of ethanolamine.

Under way at the moment is an additional $7 million program which will see expansion of ethylene glycol capacity, styrene capacity, ammonia, plus even further expansion in chlorine and ethylene.

Company has purchased an additional 400 acres of land on western outskirts of Sarnia for further likely expansion over the years ahead.

Demand for company's varied products is holding at about the same level as last year but the profit squeeze is increasing.

As is the case with many companies in the petrochemical field one or two "good" items are having to carry a number of hard hit products.

Ethylene glycol demand is holding at a good level with price firm. Present expansion program in this product will double company's original capacity level.

Chlorine market holding firm, but caustic soda is a little softer.

Ammonia market is still soft with competition keen. Company is actively promoting the direct application of anyhdrous ammonia to the soil in southwestern Ontario districts.

Polystyrene market holding at firm levels although export business becoming a less important part of over-all operations.

The improving initiative being shown by Canadian plastic molders these days is being reflected in better domestic demand for polystyrene, particularly the new improved high impact and high heat resistant types.

Company currently has seven new product projects in the engineering study stages. These include styrofoam and pentachlorophenol.

Announcements concerning some of these new projects are expected over the next six months.

Company is optimistic over the marketing outlook for Styrofoam in this country. This product has excellent insulation qualities.

ETHYL CORP. OF CANADA

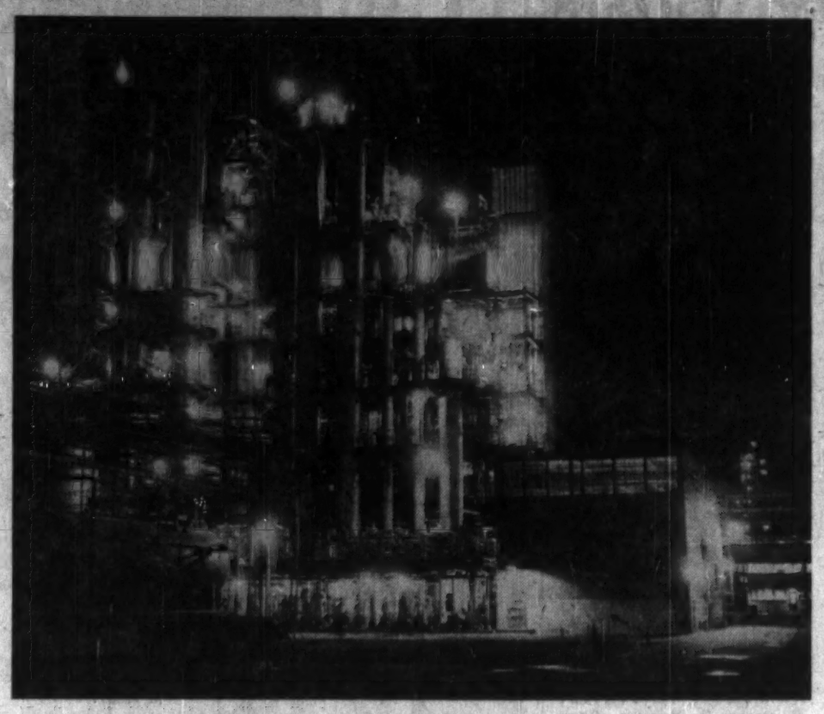
Company's new $11 million plant for first Canadian production of anti-knock compounds came into operation at Sarnia last fall and is now producing up to peak of sales requirements.

Anti-knock compound — tetra-ethyl lead — is a vital ingredient of modern gasolines. Market requirements has increased sharply in recent years with trend to higher and higher octane gasolines.

Major raw materials are ethyl chloride, lead and sodium. Currently all the ethyl chloride and sodium requirements have to be imported from U. S. But total lead supplies are being purchased from a Canadian base metals producer.

A likely development over the next year or two is construction of an ethyl chloride plant at Sarnia to chiefly supply Ethyl Canada's requirements.

A sodium plant may follow a year or two later.



LOOKING LIKE a complete city in itself, this modern petrochemical plant turns out styrene. Styrene ends up in dozens of products including plastics, paints, insulating foams, synthetic rubber, floor tiles. This is one of Dow Chemical of Canada's Sarnia plants.

IMPERIAL OIL LTD.

Work is under way on the big new $28 million petrochemical plant at Sarnia with a completion date set for mid-1958.

The unique plant setup will convert materials received from company's refinery into such basic chemicals as ethylene, propylene, normal butylenes, isobutylenes, butadienes, aromatic distillates and tars.

When these have been further processed by other companies already established, or likely to come to Sarnia, they will emerge as such consumer products — plastic products, antifreeze, detergents, synthetic fibres, rubber objects and gasoline additives.

There is no doubt this plant will have a big impact on the chemical future of Sarnia and Canada.

Early this fall company's detergent alkylate plant at Sarnia will come into operation. To have a yearly capacity of 30 million lb. of detergent alkylate (dodecyl benzene) this plant could make Canada self-sufficient in this chemical, replacing about $2.5 million of annual imports by 1958.

More than 80% of the chemical will be used as a cleaning agent in familiar household detergents and additional amounts will go into industrial synthetic detergents.

This plant which will use gases produced in the refinery operations will also make smaller quantities of other alkyl aromatic compounds as well as nonene and tetrapropylene.

These chemical raw materials are used in making synthetic detergents, lubricating oil additives, alcohols and other industrial chemicals.

POLYMER CORP.

Canada's big synthetic rubber producer — is continuing its expanding production pattern.

The big Sarnia-based petrochemical company hit a record output level of 120,000 tons last year — up some 15,000 tons from previous year. Officials have their sights set for a further production hoist in the current year to another new peak of around 130,000 tons.

Although competition in Polymer's very essential world export markets is increasing sharply — both from production of domestic based plants and privately owned U. S. plants — officials are confident they will be able to maintain their place in the export picture.

Not only is world rubber consumption increasing at a steady pace but since production of natural varieties has flattened out and is likely to stay that way, all of the increased demand will have to be met from synthetic rubber production.

Polymer is faced with one big decision and that is whether to establish its own plant for production of increased supplies of butadiene in western Canada or depend on expanding supply sources in Sarnia.

There is no doubt the basic raw material — butane — is very low-priced in western Canada but the company must be able to contract for very large supplies over a long contract period before the estimated $15 million plant decision can be taken.

Plans would be to transport the butadiene to Sarnia for processing in company's own plant.

Construction of the big nearby Sarnia petrochemical plant of Imperial Oil will make available large quantities of both butylene and butadiene.

Polymer has already made a short-term contract for some of these but would have to complete a long-term contract for large quantities to ensure its forward supply position.

It is thought likely that if a deal is to be made with Imperial it will be for butylenes; and that Polymer then would process these further into butadiene at a new plant to be constructed by the company.

SHELL OIL CO. OF CANADA

Additional capital expenditure totaling approximately $5 million will be made within the next 12 months at company's Montreal East petrochemical works.

Major new plant facilities will be to manufacture detergent alkylate, EPON resins and petroleum solvents.

The facilities for manufacturing the dodecyl benzene (detergent alkylate) will comprise one section of a new plant.

Another important section will be devoted to production of components for high octane gasoline. Main raw material for the process will be by-product gases from Shell's nearby Montreal East refinery.

New alkylate plant is expected in production later this summer.

Facilities for manufacture of methyl ethyl ketone and secondary butyl alcohol have recently been completed.

The new plant facilities will be adequate to supply Canada's entire requirements of these two products which are currently all imported.

The two chemicals are used widely in the paint, plastics and other industries. Raw material, butylene, will come from Shell's Montreal East oil refinery.

Early 1957 fire at Montreal East refinery curtailed production of these items for the time being.

Shell's original petrochemical plant, opened in 1953, was first in Canada to produce isopropyl alcohol and acetone from petroleum. Markets for both these products have been holding very well with sufficient demand for isopropyl to absorb additional output, if it was available, at this time.

Some interesting new market outlets have been developed for acetone which has improved the marketing picture considerably in this once soft-item. Some export business has continued in both products.

UNION CARBIDE CANADA LTD.

This is the most recent major new chemical company to enter the petrochemical processing field in Canada.

Company's modern $25 million project at Montreal East for production of polyethylene resin, ethylene oxide, ethylene glycol and a wide range of ethylene oxide derivatives just recently came fully on stream.

Though just now in early operating stage a $4 million addition to the polyethylene resin producing facilities is already under way and other additions are expected.

A significant feature of the chemicals-producing unit is its flexibility. This means that small quantities of specialized chemicals can be tailor-made to a customer's specifications.

The result will be many new chemicals being made in Carbide's plant that were not economically possible before in

(Continued on page 54)

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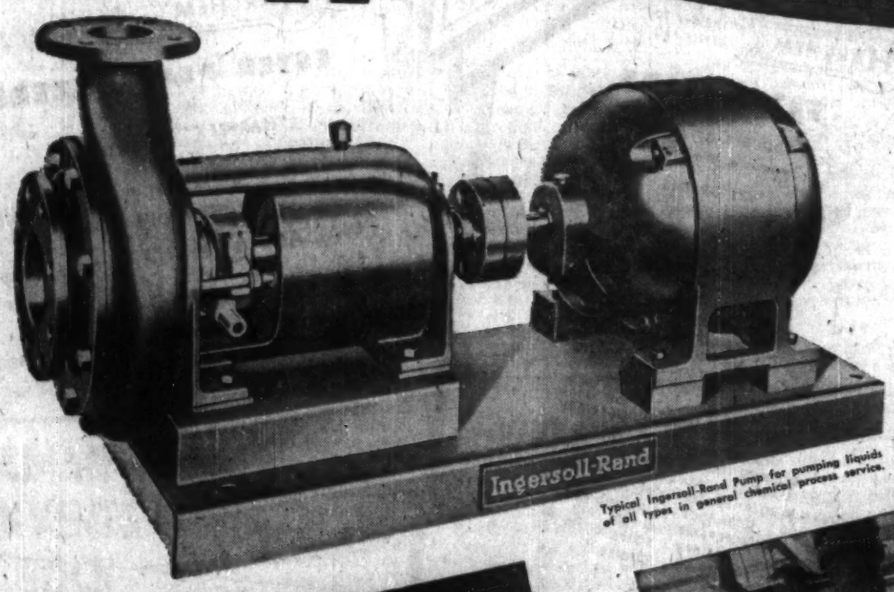
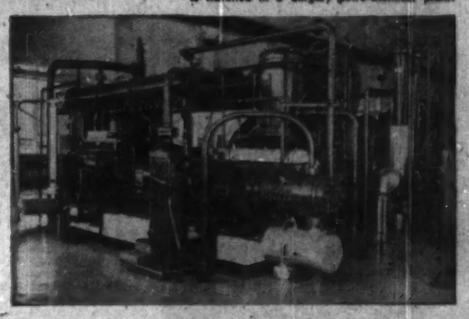


Typical Ingersoll-Rand Pump for pumping liquids of all types in general chemical process service.

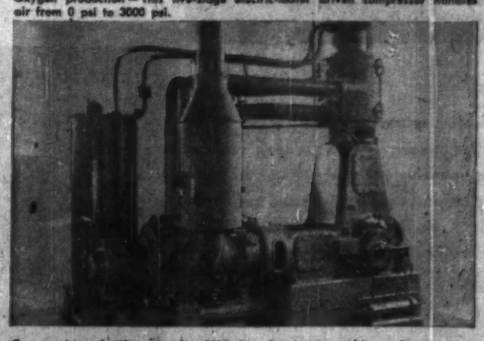
The greatly expanding chemical/petro-chemical industry of Canada — where so many materials vital to other industries are produced — where the commercial applications of scientific advancement are carried out — is well on the way to its future place with leading Canadian industries.

New and improved processes have called for new and improved equipment and our engineers have worked closely with the chemical industry to develop and build this necessary equipment. In fact, for nearly 80 years Ingersoll-Rand experience and skill have been at the service of the industry.

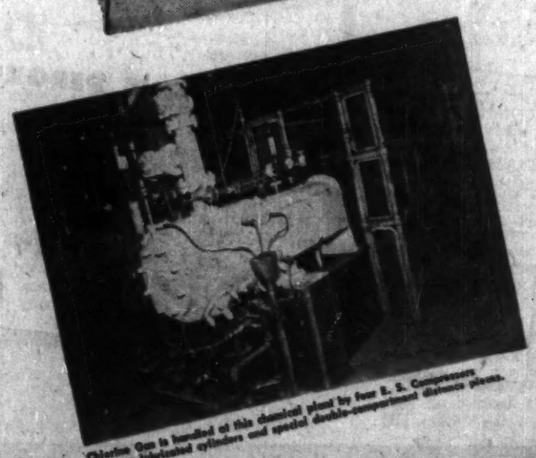
This heavy duty 5HHE-6 Ammonia Synthesis Gas Compressor manufactured in the C-I-R plant, Sherbrooke, Que., is installed in a Calgary petro-chemical plant.



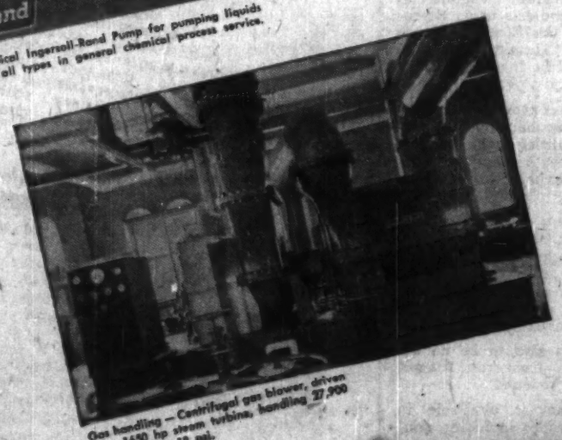
Oxygen production — This five-stage electric-motor driven compressor handles air from 0 psi to 3000 psi.



Compression of H2 and N2 — 2500 hp electric-motor driven six-stage gas compressors on ammonia synthesis service to 3000 psig.



Chlorine Gas is handled at this chemical plant by four I. R. Compressors with non-lubricated cylinders and special double-compartment distance pieces.



Gas handling — Centrifugal gas blower, driven by a 1650 hp steam turbine, handling 27,900 cfm of gas to 12 psi.

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P-180

Construction

Plastics Cut Building Costs

The drive to reduce construction costs is providing new opportunities in every building field for the use of plastics—and plastic manufacturers are spending millions of dollars in research and experiment to take advantage of the chance.

Already the use of this ubiquitous material has multiplied at a staggering rate but its manufacturers are confident that much greater outlets are ahead.

In Canada and the U. S., the work of developing plastics' use in construction has made substantial progress in the last year. An outstanding example is the use of polythene as a moisture vapor barrier throughout the walls of the 21-story Queen Elizabeth Hotel now building in Montreal. It is applied to the insulating board by adhesive.

And trends toward future uses are being revealed every week. One instance, which looks rather far ahead but is still an indication of what can be done, is the plastics house now going up in California's Disneyland. It will have walls, flooring, paneling, roof and most of its services made of lightweight, decorative plastics.

Another sign of what the future holds is a new laboratory building in St. Louis, U. S., which has been designed as a catalogue of plastics available for construction today. Outstanding feature of the building is that it carries the first all-plastic exterior curtain wall panels to be developed for commercial building use. They are framed in aluminum, and comprise a lightweight sandwich of polyester, glass and fibre on a styrene-foam insulating core.

They are finished for both exterior and interior use and, it's claimed, have less than a quarter of the weight of a conventional metal panel of equal size.

The curtain wall is only one of more than 80 other uses of plastics in the new building, many of them incorporated in a building for the first time. Here are some of the other plastic components which, it's believed, may come into wider use:

—Phenolic-coated plyforms for concrete formwork, giving a smooth surface that needs no finishing.

—Polyvinyle pipe for all services except hot water and steam.

—Polyester-silica glazed facing baked on concrete block, formerly used for interior facings only, has gone into all outside masonry.

—Largest installation yet of acrylic louvred windows which keep out direct sunshine without blinds.

In each case, it's claimed, the plastic applications represent savings on the cost of conventional items.

Cost-saving Igloo

One plastic item in Canada which has had to meet a tremendous growth of demand from construction is polythene film for which various applications have developed rapidly in the last two years.

The temporary windows of the film are a familiar sight throughout the country on buildings in course of construction. By excluding wind, snow and rain without shutting out daylight, the film permits interior work to proceed through the coldest and most unpleasant weather without discomfort to the workers. It has saved contractors money by avoiding work interruptions, cut down seasonal layoffs for finishing tradesmen.

Elaborate types of temporary protection for winter construction have been tried successfully, especially in the Prairie Provinces where the sub-zero temperatures are a very real contracting hazard.

One Winnipeg contractor has developed a portable, translucent, waterproof igloo of polythene film under which concrete has been poured and cured while the outside thermometers read 30 degrees below zero.

The arched skeleton dome of the igloo is made up in sections from laminated wood laths, bent and nailed together to form vertical and horizontal curved ribs. These sections are covered top and bottom with polythene film, then joined to make a continuous roof.

Oil heaters maintain the internal temperature at 50 degrees F. during the critical curing period.

There are two layers of film and air space between them acts as insulation against heat loss. The dome shape offers less wind resistance than a rectangular design would and also offers less hold to snow load.

Keeping Out Frost

At Cooksville, Ont., polythene film supplied by **Alexander Murray & Co.**, Montreal, licked a costly annual problem for **Argo Block Co.** which stockpiles 250,000 concrete blocks in the open. Each year, as snow melted and then froze, the pile became a huge ice-locked mass which sometimes stayed frozen till June.

Builders in Canada also use polythene film as a temporary cover for creosote-treated timber to prevent leaching out, as bag liners for lime and cement, as painter's drop sheets, and, after the Cooksville example, as tarpaulins to protect materials and equipment.

Another method of using the film for concrete curing has developed in southern Ontario where various contractors use it to cover newly poured sidewalks to slow down the evaporation of water-content by the sun. It locks in the moisture so that it spreads evenly through the mix and eliminates the need for frequent spraying during the curing period. Later, the film can be stripped off and used again.

Ordinary building paper, laid as a moisture barrier beneath new sidewalks, is easily torn by sharp stones in the fill beneath and soon disintegrates. Polythene film has been used as an ingredient by **Alexander Silvertex Products Ltd.**, Toronto, to make an improved paper which reduces such leakage with its dangers of frost and other damage.

Named Polycrepe, the new material is a lamination of 4mil polythene film to asphalt-treated creped kraft. It is claimed to be flexible, easy to handle, tough and wear-resistant, and, it's reported, stood up well to the test of workmen jumping up and down on it when laid over gravel fill.

Its purpose is to stop moisture run-off from freshly poured cement to prevent honeycombing of the lower parts, and to act as a permanent bond-breaker between slab and earth as a precaution against frost action or soil movement.

Sponsors state this lamination has considerable potential as an underlay for concrete highways, and as a lining for canals to prevent seepage losses.

Polythene film is claimed to have many advantages as a moisture barrier in buildings. Its moisture vapor transmission rate is stated to be only about one fifth of the maximum allowed by **Central Mortgage & Housing Corp.** standards, and its light weight makes for easy handling. A 72-in.-wide 2mil film roll containing 1,500 sq. ft. weighs about 11 lb.

Its use in construction of the Queen Elizabeth Hotel will, it's believed, help reduce heating and redecoration costs. It has also been used as an underlay for the slab floor of the new Stratford Festival Theatre in Ontario.

Report on Petrochemicals

(Continued from page 53)

this country, Carbide officials say.

The company will make ethylene oxide by the direct oxidation of ethylene, with subsequent conversion of the oxide to ethylene glycol and to various derivatives of ethylene oxide.

The raw material is ethylene extracted from the byproduct gases of the neighboring refineries of Imperial Oil and McColl-Frontenac Oil Co. plus cracked liquid petroleum fractions.

The polyethylene resin plant also uses ethylene as its major raw material using the gas under very high pressure and temperatures. Capacity of plant will be 22 million lb. per year.

Construction started on Carbide's new plant in April, 1955. The various production units were completed — ethylene glycol, anti-freeze canning and shipping in 1955; compounding of polyethylene resin in 1956.

Last month the plant came into complete operation. Included among the wide range of ethylene oxide derivatives will be ethanolamines for use in cleansing natural gas, glycol ethers, and polyglycols.

Union Carbide in its varied operations in this country has spent some $38 million on new plant, equipment and expansion from 1952 to 1956.

Company plans to spend approximately $42 million in new plant and/or expansion projects between 1957 and 1959.

Major Market Set For Dow's 'Styrofoam'

Dow Chemical of Canada — manufacturer of Styrofoam—is pretty sure it has a major new market outlet for its polystyrene.

This white, rigid foam-like material is the lightest of all rigid insulation, weighing 2.4 oz. per board foot.

The new product serves as a direct plaster base and an insulation for foundation, floors and roofs and costs no more when completed than the conventional building materials it replaces, company officials state.

Two current commercial building projects using Styrofoam are the Board of Trade Building, Toronto, and the Montreal Life Insurance Bldg., Montreal.

As well as providing a permanent vapor barrier, the insulating qualities make possible reduced heating and air conditioning expenditures in such structures.

Styrofoam — Dow's trade name — is formed from sparkling granules of polystyrene, processed from coal and oil, expanded some 40 times to produce a non-interconnecting cellular structure.

There is said to be no deterioration from rot, fungus, insects or rodents.

Styrofoam is available in various grades including non-inflammable types.

Low-temperature insulating qualities is said to make it ideal for such commercial applications as cold rooms and refrigerated areas.

Canada Packers Ltd. insulated processing and storage plants with it.

Borden Co. insulated refrigerated trucks with it for transportation of perishable dairy products.

Here's Why CHEMICAL MEN specify...

EC&M OIL-BREAK STARTERS (2200-4800 VOLTS)

—THEY'RE Specifically Designed FOR DUSTY, CORROSIVE ATMOSPHERES

Exterior and interior views of EC&M Type ZHS High Voltage Starter in NEMA 3R (raintight) enclosure with threaded connections for conduit

EC&M Type ZHS Starters are a "natural" for chemical plant service because the high interrupting capacity ZHS contactor operates under oil. Being totally oil-immersed, this contactor is always well lubricated, protected from corrosion and requires infrequent inspection. There are additional advantages—

QUICKLY INSTALLED because starters are shipped with all internal wiring complete. These ready-to-use starters cut installation time and cost.

HIGH INTERRUPTING CAPACITY • These EC&M Starters are available in enclosures for indoor or outdoor mounting, and are supplied in 3 ratings—*(1)* 50,000 KVA (certified) interrupting capacity (inherent in the starter)—*(2)* with power-type, current-limiting fuses—*(3)* VALIMITOR® (volt-ampere-limitor), the bus may be of unlimited KVA.

With EC&M contactor-lifter, contactor is easily raised above oil level for easy inspection without disconnecting any bolts or leads

Down-view into oil tank. Note compactness of contactor and transformer assembly. All leads are anti-syphon

An installation of two EC&M 2300 volt, reversing dynamic braking starters in a large rubber plant

For the complete story, write for Bulletin 8130-CH

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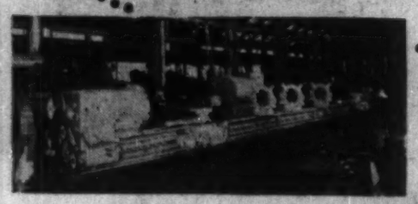
VERSATILITY

—a feature of the BERTRAM shops



At the left is shown a 48-inch lathe overhauled by Bertram for a large Canadian dockyard. Distance between centres was increased from 25 ft. to 65 ft. Urgent, delivery requirement of the customer was met.

Below—Friction hoist drum approximately 12 ft. diameter, entirely fabricated in the Bertram shops.

With the most modern equipment and facilities, skilled personnel and exacting quality control your special machinery requirements, plate fabrications, overhaul jobs and gray iron castings can be supplied promptly and to your specifications. Get a Bertram quotation and compare.

Below—A 15-station "building block" Automatic Transfer Machine. Developed and built by Bertram for a Canadian manufacturer of automobile components.

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Plastics Industry

See Volume Doubled in Five Years

Canadian plastics industry has gathered such forward momentum over the past three years, it's doubtful if even a general slow-down in business could reverse the expansion pattern.

There's every reason to expect the industry's remarkable growth—a doubling of sales volume every five years—will be maintained in the future.

Plastics are not just growing with other industries they supply but are discovering new exciting products.

Some of these new uses, particularly those used in such big volume fields as auto parts, house construction applications, could mean such tremendous tonnages of materials that to forecast the next 20 to 30 years progress would be foolhardy.

Have a look at just a few predictions from top industry personnel:

"I believe in the next 15 years interior car fittings will be fabricated almost entirely from plastics, only the basic shell being made of metal"—Sir Miles Thomas, chairman of **Monsanto Chemicals.**

"Homes constructed of plastic materials funneled from helicopters hovering over a building site will become reality soon"—Henry H. Reichhold, president of **Reichhold Chemicals, Inc.**

"Atomic bombardment processes being tested will lead to new plastics strong enough for the structural members of buildings, and for auto bodies and aircraft" — Dr. Harold Gershinowitz, president of **Shell Development Co.**

Finally:

"Don't be surprised at anything that might come from the plastics industry in the next 20 years" — Russell C. Weigel, manager Plastics Sales, Polychemicals Dept., **E. I. du Pont de Nemours.**

Not So Crazy

Fantastic predictions? Well maybe. But plastic hoses, plastic coated steel pipes, plastic noses for jet aircraft would have sounded pretty fantastic too 10 years ago.

People in the plastic industry—from resin producers to molders—are about as enthusiastic a working group as can be found in any industry.

A good part of the reason is that they know they are in an industry in which just about anything can happen.

Every company has exciting new ideas and industry generally was never in a more receptive mood to give the "new twist" a fair tryout.

Although it's difficult to assess the figure because of heavy imports of plastics in various made-up goods industry leaders estimate Canadian plastics use is running just moderately behind the per capita consumption in U. S.

F. P. Wilson, vice-president, **Union Carbide Canada**—estimates each Canadian uses about 19 lbs. of plastics a year and by 1965 this will increase to 35 lb.

With a Gordon Commission forecast of 19 million population here by 1965 that would add up to a staggering consumption of 665 million lb. of plastics, more than double present consumption.

A big new potential is seen for foamed plastics in polystyrene and polyurethane. With housing insulation a particularly promising new application.

The auto industry uses 13 lb. of plastics per car. In 1960 this is seen swelling to 20 lb. More and more of the dies and tools used in car manufacture are made of plastics.

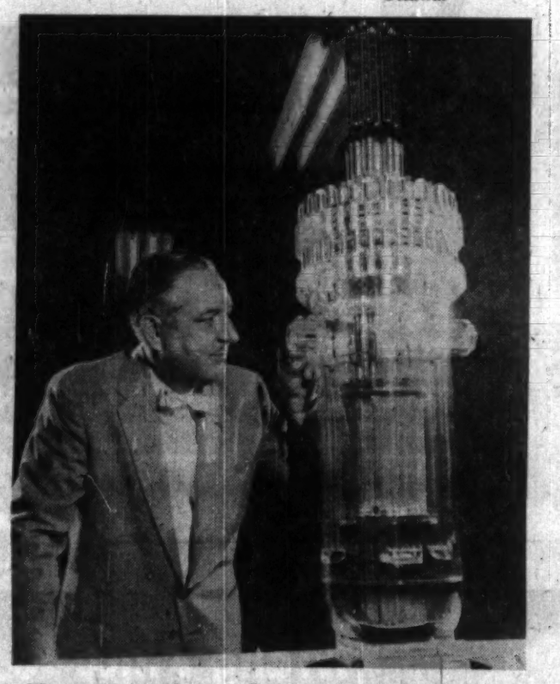
Plastic pipelines for transportation of oil and gas, water, various processing fluids in industrial plants offer tremendous new volume potentials for plastics.

Use of perforated polyethylene pipe to keep waterways open in winter caught the imagination of government and shipping officials recently.

Suggest Outlet

Despite the heavy volume flow of plastics into the packaging field industry leaders predict this is still one of the biggest growth outlets of all.

PLASTIC PARK BENCH design by Polyfiber Ltd., Renfrew, Ont., at the request of the National Industrial Design Council. The bench is now on exhibition on the Driveway in Ottawa.



ALL MOVING PARTS really move in this four-ft. plastic model of a thermal reactor. About one sixth of the real reactor's size, this painstakingly accurate model is comprised of 512 differently colored plastic units.

The long-established phenolics and polystyrenes will probably manage small gains.

Polyester will again show a big percentage jump but will remain small in relation to the other major materials.

Most molders are enjoying their best forward orders position in history. Injection molders (toys, housewares, custom molded parts, etc.) are all busy.

Extruders (film, plastic pipe, plastic hose, etc.), are now into their busiest season yet with orders far ahead.

The compression molders (wiring devices, appliances parts) however, are experiencing a slow-down, reflecting credit restrictions in certain fields, particularly new housing.

Here are just a few of the predictions about this fast-stepping industry:

—The record 200 million lb. of plastic raw materials produced in Canada last year will grow to at least 300 million lb. by 1960.

—The unprecedented rate of growth—the industry has increased 15 times in the last 10 years—will be maintained or even bettered over the next three years.

—Polyethylene — will continue to lead the plastics race with a likely 35% boost in consumption again this year.

—New plastics being developed today — low pressure polyethylenes — polyurethanes, polypropylenes, foamed plastics—could push the market into still untouched fields.

—Growth in the tremendous packaging field, piping, housewares will continue sharply upward over the next few years.

ates and resins for the plastics formulators.

Such new undertakings as the $28 million petrochemical plant of **Imperial Oil** at Sarnia, Canada's first plant for urea production at Hamilton (North American Cyanamid) and Union Carbide Canada's unique integrated chemicals and polyethylene plant at Montreal East, will exert a major impact on the plastics industry over the next few years.

Shell Oil Co. of Canada's new Montreal east plant for first Canadian production of epoxy resins, **Du Pont Co. of Canada's** new Zytel nylon resin plant at Kingston, **B. F. Goodrich** Canada's new polyvinyl plant at Welland and **Monsanto** Canada's doubled PVC capacity at Montreal are all combining to improve the domestic plastics picture.

At the moment Canadian plastics officials are trying to get plastics included in the general tariff review promised the chemicals industry this fall.

Probably the biggest industry problem of all is the mounting imports of plastics in semi-fabricated or made-up goods e.g. in refrigerators, radios, appliances, parts for cars, imports of large chain department stores.

Although its difficult to assess plastic imports in these forms, some people estimate its almost as big again as entire Canadian production of primary plastics.

Although their forecasts vary anywhere from gains of 5% to 25% according to the type of plastics business they are in, the average guess is that overall business this year in Canada will be up 10-15% over last year when a new peak of 200 million lb. of resins were produced.

Biggest market gains will again be in the polyethylene field, still the fastest expanding material in the whole plastics wonder bag.

The vinyls—still the biggest domestic production item—will show a much more modest rise.

Packaging use of polyethylene film is expected to expand by at least 50% in the next five years.

Attractive polystyrene containers—such as are used increasingly in such food fields as ice cream — will boost market for this plastic material.

Plastics is also expanding rapidly in the defense field.

Rockets, guided missiles, controlled aircraft flying at supersonic speed all require plastics e.g radomes, fins, interior parts.

In some cases about 20% of plane fuselages are now made of plastics. This is expected to rise to 50%.

A fast-expanding and diversifying Canadian chemical industry is broadening the list of raw materials, intermedi-

Polyester 'Makes Everything'

A new material of fabrication at last appears to be arousing the interest of industry in this country.

Reinforced plastics, long-known and after a somewhat disappointing growth trend, is now one of the fastest-growing products in the entire plastics field.

This exciting plastic material can augment or replace wood, steel, aluminum and other common building blocks in innumerable applications.

The plastics used are polyesters and the reinforcement material is generally glass, although other materials such as sisal fibres may be used.

The combination of polyester and reinforcement is very strong, light and corrosion resistant.

In addition, complex shapes can often be made as one unit.

This eliminates difficult and costly fabrication methods such as welding.

While only a few years ago it was believed that only relatively small units could be produced, today there seems to be no limit to the possible size.

Regardless of size of the finished article, the necessity of obtaining expensive metal stamping dies is eliminated.

Those who have been able to use reinforced plastics to advantage are boat, transportation, swimming pool, awning, sports equipment, aircraft, corrugated sheet, and automotive industries.

A relatively new development in use of polyesters which appears to have a bright future is surface coating field.

Here some of their unusual properties are beginning to be appreciated in new types of finishes.

Military services have been very active in the polyester field and this material looms large in plans for arctic defence.

Resin producers agree that the armed services constitute one of the biggest single outlets for their reinforced polyesters.

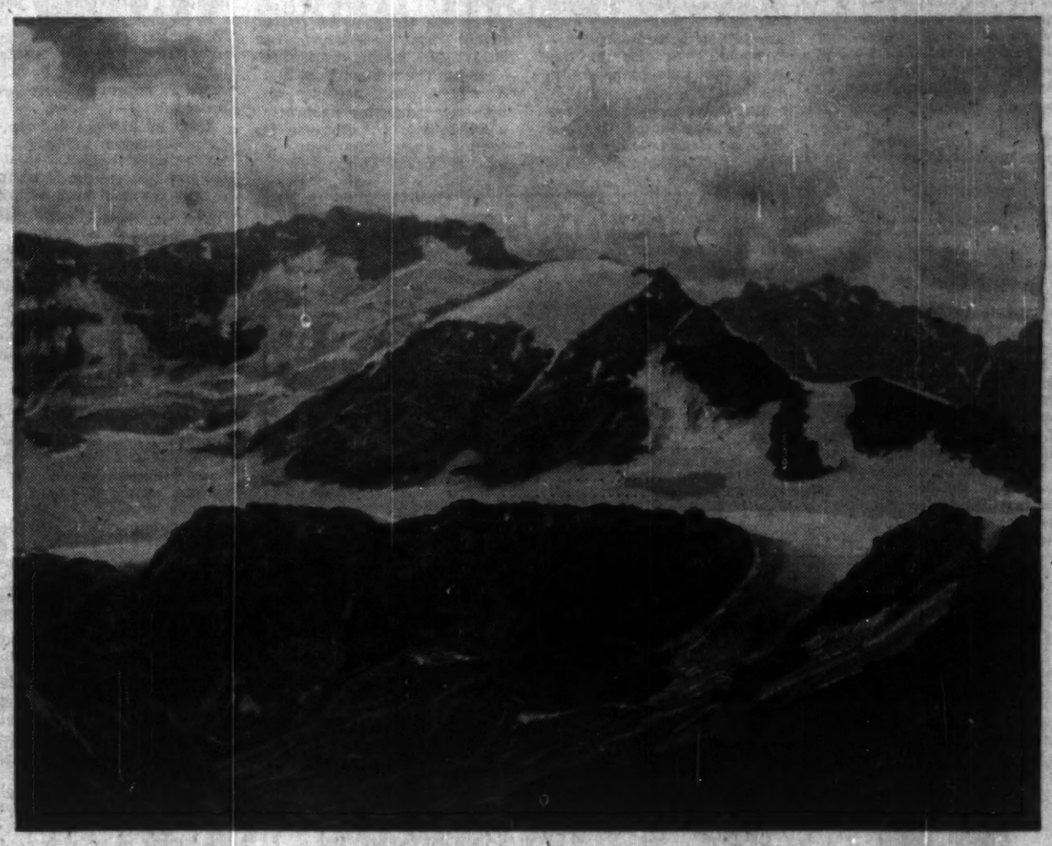
In common with most other plastics, this material was subject to a great deal of premature promotion.

Views on estimated consumption were very expansive. Unfortunately the technical data and trained personnel were not available to channel polyesters into their proper uses.

As a result there were many instances of misapplication and even improper handling for the correct applications.

This experimental period is now paying off in real knowledge and impressive market growth.

Raw material suppliers, after a shaky start, are now looking forward to an unprecedented demand in the months ahead.



More Cars Mean More Tires Boom for Carbon Black Firm

Cabot Carbon of Canada has just completed a major expansion at its Sarnia, Ont., carbon black plant that boosts capacity to 55 million lb. annually.

Company started with a capacity of 25 million lb. back in 1952.

Cabot Carbon produces three basic rubber grades of carbon black and supplies virtually all of the domestic market requirements for these grades.

Approximately 80% of Cabot Carbon's output goes to tire manufacturers; the rest to manufacturers of mechanical goods and footwear.

In tires carbon black is the reinforcing pigment that increases strength and abrasion resistance.

As the rubber industry has become more and more specialized turning out products calling for special properties for special market applications, so the carbon black makers have kept pace with a range of new "blacks" each offering special qualities.

There is a special black, for instance, that helps supply high abrasion resistance to the treads of tires; another that imparts good flexing properties combined with strength to tire carcasses, industrial belt-ings; another provides high electrical conductivity for certain electrical applications.

To build into these blacks just the correct qualities requires the right petroleum raw material and a set of perfectly controlled burning and collection conditions.

Although raw material petroleum supplies—a type of residual oil from refining operations—are at present being imported, it is expected that in the near future bulk of specialized requirements will be met from a nearby refinery.

Most exciting new development in the carbon black field has been the discovery of a process whereby carbon black can be added to plastics material in sufficient quantity to impart useful properties.

Up until now only small quantities could be used before plastics material became brittle and cracked.

Developed by Godfrey L. Cabot Inc., Boston, the new process is said to virtually overcome two of the most serious limitations of plastics — creep and fracture.

Cabot Carbon of Canada—a subsidiary of the Boston company—is watching the new development closely.

Plastics

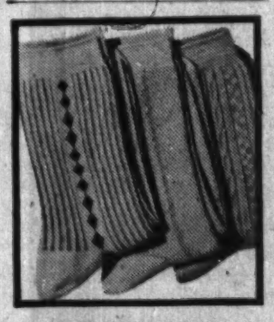
Production of Plastic Materials
1956
(000's lb.)

Vinyl acetate monomer	40,000
Cellulose acetate flake	45,000
Polystyrene	37,500
Phenolic resins	25,000
Polyvinyl chloride	16,200
Nylon	20,000
Phenolic adhesives	16,000
Polyethylene	10,000
Urea adhesives	6,000
Vinyl acetal	300
Polyesters	3,000
Total	219,000

Consumption of Primary Plastics

Polyvinyl chloride	29,000
Polyethylene	23,000
Phenolic resins	27,500
Polystyrene	13,500
Phenolic adhesives	24,000
Nylon molding powder	250
Urea molding powder	500
Polyester	3,000
Melamine	8,000
Epoxy resins	1,000
Cellulosics	5,250
Vinyl acetate	4,000
Vinyl acetal	300
Vinyl alcohol	1,500
Acrylic	800
Total	141,300

Source: Canadian Plastics (Feb., 1957)



CANADIAN FIRM INVENTS NEW SOCK

The 2-Sole Sock is an exclusive PENMANS invention, and it's been such a success that it's being copied all over the world. PENMANS produce the only socks of this kind in Canada . . . *STRETCHY*, one-size socks, whose 2-SOLES provide built-in double comfort. This line is now available in a wonderful new range of pastel shades. You can get them plain or patterned . . . in long-lasting nylon, nylon-and-wool, or nylon-and-cotton. Be in style with a smile — the smile that comes from real foot-comfort! Insist on 2-SOLE One-Size STRETCH SOCKS by

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Penmans

New Town, Canada

It could be here . . . and the search that may pin-point its site is already under way.

Cominco exploration teams—prospectors, geologists and engineers, are looking over country like this for interesting outcrops. If they are lucky, and follow-up development is successful, a new mine could start to operate. Statistics show it's one chance in a hundred thousand, but it could be a big Canadian mine.

If it is, NEW TOWN, CANADA will be born. Soon there will be homes, stores, schools, hospitals, power and water services.

New roads and railways serving NEW TOWN will open up new country, encourage new industries, create new jobs . . . and it all could be, because a Cominco exploration team found an "interesting outcrop".

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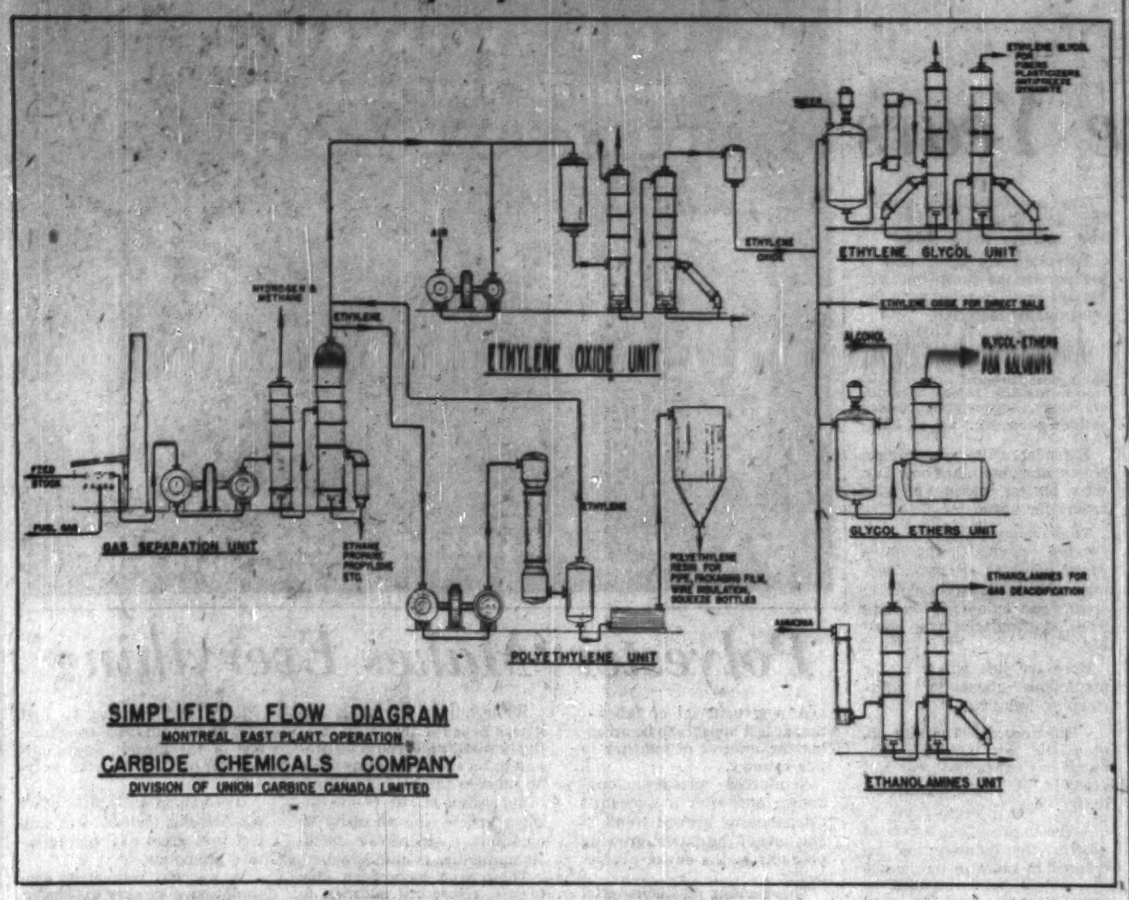
How Polyethylene is Manufactured



'Plastic Cinderella'

More Jobs for Polyethylene

Polyethylene is heading for another record sales year in Canada and the U. S.

Plastics businessmen are forecasting that consumption of this fast-moving material will jump to over 30 million lb. this year in this country—that by 1960 it could zoom over the 50 million lb. mark. The 1957 estimate is a 30% increase over last year — and last year chalked up a like increase over the year before.

With an eye on the ever expanding polyethylene pace, chemical manufacturers here and in the U. S. are planning multi-million dollar plant programs.

Union Carbide of Canada's integrated Montreal East chemical and polyethylene plant came on stream recently with a capacity of some 22 million lb. of polyethylene annually. Plans are in hand for a further production boost.

Du Pont Co. of Canada (1956) which has purchased 500 acres at Sarnia, Ont. is believed planning manufacture of the wonder plastic in that city.

Dow Chemical of Canada has also been looking closely at the fast developing polyethylene picture but has no definite plans as yet.

One thing is certain there'll be lots of ethylene available—the major raw material—in the Sarnia area once **Imperial Oil's** $28.5 million petrochemical plant comes on stream in 1958.

Canadian Industries Ltd. — the first producer of polyethylene resin in this country at its $14 million Edmonton plant — is standing pat for the time being with present processing facilities.

It's a known fact that several of the major Canadian chemical companies are watching closely the results of the first large-scale low-pressure polyethylene projects in U. S. Made by an entirely new process from presently used high-pressure technique the new polyethylene material has widely different characteristics.

For one thing it will have higher heat resistance, be harder, less pliable, somewhat stronger. There is no doubt that it will expand polyethylene into new marketing fields.

Right now polyethylene is soaring along buoyantly in several major volume fields and a host of smaller applications.

Polyethylene film, for packaging chiefly, is a fast growing field. It took 5.3 million lb. of material last year. The plastic people are saying it will take up to 7.5 million lb this year.

In packaging applications the film's strength, clarity and competitive cost are big factors. Research effort is being made to improve clarity even further.

Used as a vapor barrier in the construction industry — a fast-growing application over the past year — the film's low rate of water permeability, combined with strength, has been the major advantage.

Demand For Plastic Pipe

Plastic pipe—still one of the fastest growing uses in this country — took 5 million lb of polyethylene resins in 1956.

The estimate is for a further 30% jump this year to around 6.5 million lb.

Biggest pipe application in Canada—and it appears likely to continue—has been for cold-water lines, especially for farm irrigation and watering systems. Summer cottages, mines, certain plants are also important outlets.

Use in municipal waterworks is seen growing as well, as big strides are made in overcoming standards objections of municipal building authorities and plumbing and sanitation inspectors. This is being done by improved product developments, new polyethylene material formulations with more desirable qualities and development of new long service tests that might convince the regulators of the plumbing and building codes.

Other fast-expanding polyethylene piping applications are for lines in artificial skating rinks, water systems for golf courses, underground piping for certain hydro line applications.

Keeping Seaway Open

One of the most exciting new potential applications is use of perforated polyethylene pipe to keep inland waterways and shipping channels open in heavy winter seasons.

A polyethylene pipe is laid along the bottom of the channel and air is pumped through it from a compressor. The escaping air from the perforations forces warmer water to the surface, thus keeping temperature of top water above freezing.

Polyethylene Race

Canadian Consumption
(Million lb.)

1953	1954	1955	1956	1957 (Est.)
4	9	16	23	31

HERE'S WHERE IT GOES

	1956	1957
	(Mill. lb.)	
Film	5.3	7.4
Injection molding (toys, housewares, custom molded parts, etc.)	5.7	7.5
Pipe	5.0	6.5
Wire & Cable	4.5	5.5
Paper Coating	1.8	3.5
Miscellaneous	0.4	0.7
	22.7	31.1

Minnesota M&M Makes New Tape

A new plastic packaging tape that can be used for packaging anything from oil to nails is now being offered in Canada by **Minnesota Mining & Manufacturing.**

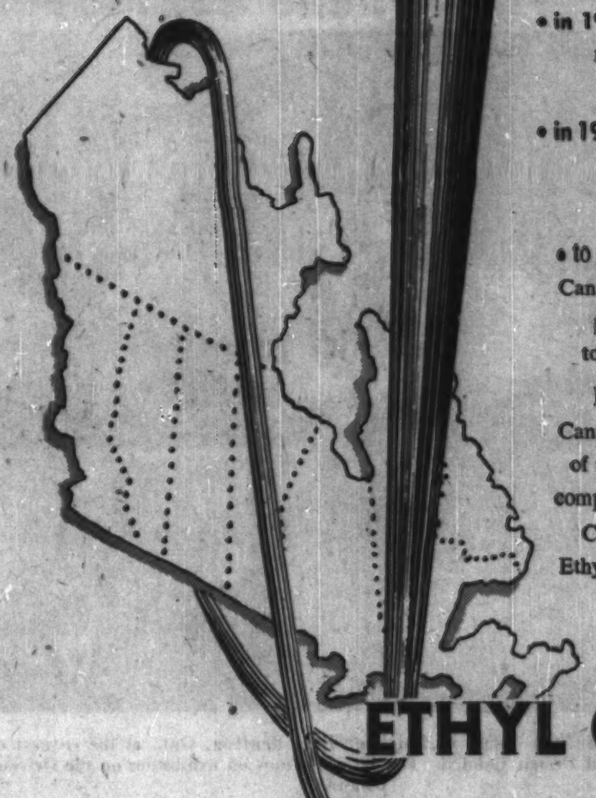
The new product, considered one of the most important additions to the plastic tape field since introduction of Scotch tape, is a heat-sealable high strength polyester film.

It combines the oil resistance of some films and the water resistance of others.

Another new 3M product now being tested by parent company in U. S. is a fluoro chemical that is water and oil repellent.

It is reported causing considerable excitement in the paper and packaging industries and among manufacturers of textile and leather products.

CANADA'S OIL INDUSTRY...
...KEEPS THE WHEELS TURNING



• in 1934 . . . Canada's twenty-seven thousand retail gasoline outlets dispensed 337 million gallons of automotive gasoline.

• in 1956 . . . the thirty-one thousand retail outlets in Canada filled cars' tanks with over 1700 million gallons of gasoline.

• to help sustain such a motorized population, Canada's oil industry has increased its crude oil production from 1½ million barrels in 1934 to an estimated 170 million barrels in 1956.

Ethyl of Canada is an active participant in Canada's growing oil industry. The economics of manufacturing gasoline demand antiknock compound in an ever-increasing quantity. As a Canadian Company with facilities at Sarnia, Ethyl of Canada helps keep the wheels turning by meeting this need.

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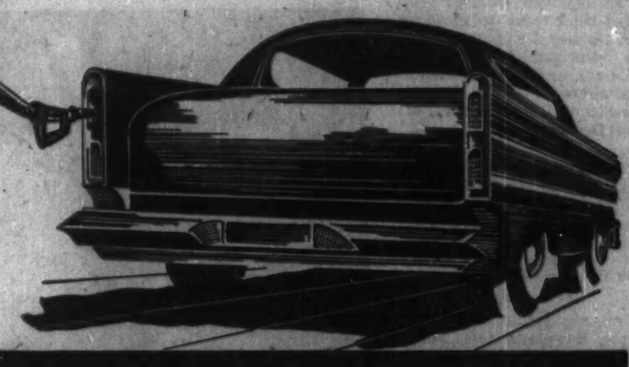

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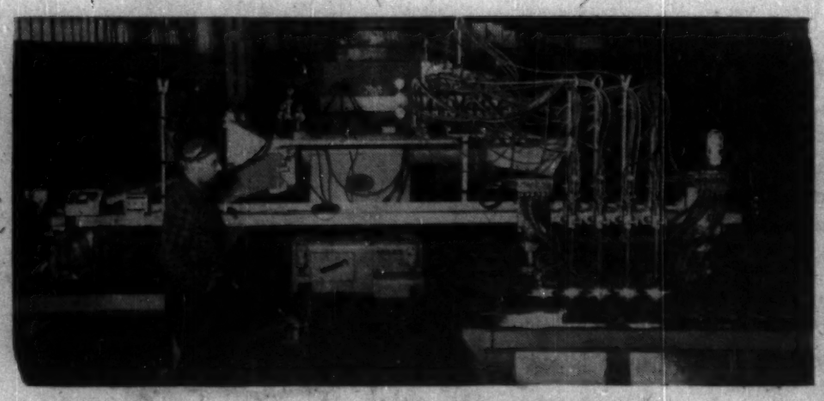
We are an all-Canadian company and have specialized in steel and alloy plate fabrication for 50 years. We are always a step ahead and proud of our leadership. Send us your blueprints or problems for designs or quotations.



It works from engineer's drawings, cutting steel plate, all by itself!

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When building a new process plant, engineering is the easiest place to cut investment costs. But it's the wrong place! The saving of a few hundred hours of engineering, or trying to buy engineering at a price, can cost thousands of extra hours of field labor and additional thousands of dollars for materials. Although the added cost of inadequate engineering seldom can be pin-pointed beforehand, it is inevitably reflected in the operating record of the plant.

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New Chemical Sinews

Here's the expansion score on the fast-stepping Canadian chemical industry.

In the last five years $500 million has been spent on new plant and expansion. An additional $140 million is underway this year.

This table shows where the big program has been going on, projects completed or undertaken over the past year, and total expenditures by most companies for the dynamic growth period 1952-1956.

Firm and Expansion	When Completed	Place	Cost ($ mill.)
B-A Oil			
First stage of condensate and sulphur plant (225 tons daily sulphur capacity, later 800 tons).	Early 1957	Pincher Creek, Alta.	7.0
B.A. Shawinigan			
Plant capacity for phenol and acetone production doubled (capacity now 26 million lb. of phenol, 16 million lb. of acetone).	Mid 1957	Montreal East	
Also added facilities for first production of nonyl phenol.		Montreal East	
Canadian Chemical Co.			
Modifications under way to enable more diversified chemicals output.	Late 1957	Edmonton	3.9
Special equipment to produce Arnel textile fibre.		Edmonton	
Spent on new plant and equipment since 1952 — $50.5 million.			
Canadian Industries Ltd.			
Extension to caustic soda and chlorine plant.	Jan. 1956	Cornwall	
New plant for production of blasting agents.	Early 1957	Seven Islands, Que.	
Extension to paint research lab.	Early 1956	Toronto	0.4
New ammonia plant with capacity of 200 tons daily.	Mid 1957	Millhaven, Ont.	9.0
Polythene and Fabrikoid research laboratory.	Mid 1957	New Toronto	0.7
Expansion to paint plant.	Fall 1957	Toronto	4.0
Sulphuric acid plant.	Late 1957	Copper Cliff	3.0
Hydrogen peroxide plant.	Late 1957	Hamilton	..
New explosive lab.	1958	Beloeil	0.6
Spent from Jan. 1, 1951 to Dec. 31, 1956 — $119.7 million.			
Canadian Oil Cos.			
Installing special facilities to produce benzene, toluene, xylene.	Mid 1957	Sarnia	3.0
Canadian Titanium Pigments			
First Canadian plant for production of titanium pigments.	Fall 1957	Varennes	15.0
150-tons-daily sulphuric acid plant for raw material supply to pigment plant.	Fall 1957	Varennes	
Davison Chemical Co.			
New plant for first Canadian production of synthetic fluid petroleum cracking catalysts.	Mid 1957	Valleyfield	6.0
Dow Chemical of Canada			
Expansion of ethylene, chlorine, plastics facilities.	1956 and 1957	Sarnia	5.0
New ethylene plant, research and control laboratory.			
Projects under way—expansion ethylene glycol, chlorine, ethylene styrene and ammonia facilities.	Mid 1957 to early 1958	Sarnia	7.0
Has purchased 400 acres of additional land at Sarnia for future expansion.			
Since 1952 for new plant and equipment—$20 million.			
Du Pont Co. of Canada			
Orlon acrylic fibre plant.	Mid 1957	Maitland	8.0
Explosives plant.	Mid 1957	North Bay	7.0
Expansion of facilities to produce nylon intermediates.		Maitland	
Addition to house spinning equipment, additional equipment for heavy-denier yarn output, addition to plant power house.		Kingston Kingston Kingston	7.5
Cellophane cellulose film. (design under way)		Maitland	..
Hydrogen peroxide plant. (design under way)		Maitland	..
Sales service lab. expansion.		Kingston	..
Zytel nylon resins unit.	Mid 1957	Kingston	..
New technical laboratory.	Fall 1957	Kingston	0.75
Has purchased 500 acres of land at Sarnia recently for undisclosed new project moves.		Sarnia	
Spent since 1954 on new plant and equipment — $33 million.			
Electric Reduction Co. of Canada			
Plant for output of sodium chlorate.	Early 1957	Vancouver	5.0
New plant for production of phosphoric acid, sodium, and calcium phosphates.	Early 1958	Port Maitland	5.0
Hooker Electrochemicals			
New caustic soda, chlorine and hydrogen plant.	Mid 1957	Vancouver	12.0
Ethyl Corp. of Canada			
First Canadian plant for production of anti-knock compounds.	Late 1956	Sarnia	11.0
B. F. Goodrich-Canada			
New plant for production of geon polyvinyl plastics.	Early 1957	Niagara Falls	3.5
Imperial Oil			
New plant to produce detergent alkylates.	Early Fall 1957	Sarnia	5.0
Petrochemical plant to recover ethylene, propylene, normal butylenes, butadiene, etc.	Mid 1958	Sarnia	28.5
Jefferson Lake & Pacific Petroleums			
Sulphur extraction plant.	Mid 1957	Fort St. John, B.C.	1.8
Monsanto Canada			
Facilities to initiate Canadian production of certain rubber chemicals.		Montreal	..
New adhesives and resins plant.		Edmonton	..
Expansion for production of special polystyrene products.		Montreal	1.5
Total spent since 1952—$8 million.			
Northwest Nitro-Chemicals			
Fertilizer plant (140,000 tons annual capacity).	Early 1957	Medicine Hat	23.0
Polymer Corp.			
Increased copolymer rubber production capacity, a specialty latex plant for foam sponge latex, addition to research facilities	1957	Sarnia	11.0
In planning stage, a butadiene plant.		Sarnia	5.0
Spent in 1952-1956 period—$20 million.			
North American Cyanamid			
First Canadian plant for xanthate chemical production.		Welland	
Amino triazole unit.		Welland	
Expanded nitrogen solution facilities.		Welland	
Expanded lime output.		Beachville	
Modified paper chemicals operation.		Welland	
First Canadian plant for production of urea.		Hamilton	12-15
Noranda Mines			
1,000 tons daily capacity plant for production of sulphuric acid.	Fall 1957	Cutler, Ont.	10.0
Naugatuck Chemicals			
New plant to produce polyester resins.		Elmira	0.5
Nichols Chemical Co.			
Dry alum plant.	Jan. 1957	Barnet B.C.	..
Canada's first liquid hydro fluoric acid plant.	Mid 1957	Valleyfield	..
Modernization of works for production of chemically pure acids and ammonia.	1957	Sulphide, Ont.	..
Fine chemicals plant.	Early 1958	Valleyfield	..
Reichhold Chemicals (Canada)			
Phthalic anhydride plant and recent addition.	Mid 1956	Ste. Therese	1.0
Polyester and phenolic resins unit.	1957	Toronto	.2
Shawinigan Chemicals			
Rotating carbide furnace.	Mid 1956	Shawinigan Falls	1.7
Sulphuric Acid plant.	Fall 1956	Shawinigan Falls	0.8
Caustic soda-chlorine.	Early 1958	Shawinigan Falls	5.0
Spent on new plant and equipment 1953-1956—$7.4 mill.			

(Continued on page 59)

Pipelines Big Market For Plastics

Plastics manufacturers have their eyes on one of the biggest potential markets in this country.

Its plastics applications in oil and gas pipelines, both in actual manufacture of the pipe itself and in the coatings that go around it.

There is little doubt that if a plastic pipe can be produced that will meet the rigid specifications of oil and gas pipeline officials one of the biggest markets yet will swing into the plastic market field.

Continuous research has been going on in this field since 1949 and major improvements have been made in last couple of years.

The early uses of plastic pipe were characterized by inconsistent material quality, little or no engineering data availability, and no engineering or installation experience.

The newer plastics being turned out for petroleum pipelines shows a decided improvement in each of these three aspects of their use.

Plastics now being used for petroleum-production piping includes cellulose acetate butyrate, styrene-butadiene-acrylonitrile copolymer.

Butyrate plastic pipe has already been used in the western Canadian oilfields. Imperial Oil has used this type of pipe in its Devon field in Alberta.

Selected because of its resistance to corrosion from brine solutions and soil, the installation was 3,000 ft. long and was laid from the battery to a salt water injection well.

Other plastic pipe applications in the western oilfields are being watched very closely for performance under varying climatic changes.

At the moment it looks as if biggest potential field petroleum piping will be in short gathering wells where pressures are not overly high—there are a number of such examples in the U. S. oilfields, some of the pipelines extending as much as 10-15 miles in length. Other uses will be in disposal of salt water.

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New G-E silicone Anti-Foam 60 disperses easily—pays for itself

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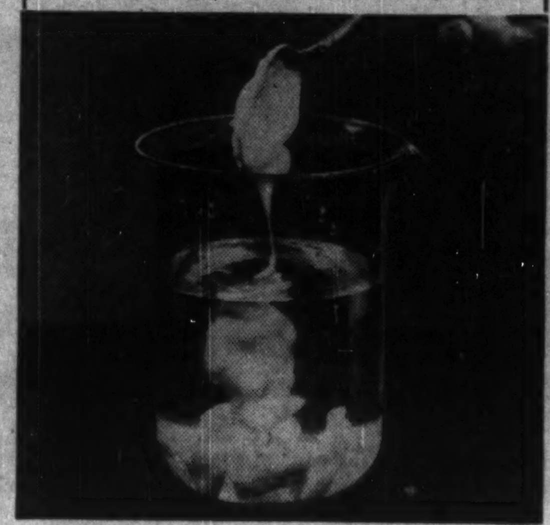

Conventional high-viscosity silicone anti-foam agents (above) do not disperse readily in water—require vigorous stirring to prepare working concentrations.

NEW G-E ANTI-FOAM 60

Low-viscosity G-E ANTI-FOAM 60, however, can be *poured*—and disperses instantly!

Costly, troublesome foaming can now be controlled—more easily—with the new General Electric silicone ANTI-FOAM 60. The superior dispersibility of this low-viscosity silicone emulsion means that it can be used as supplied, or readily reduced with water to any desired concentration. Little or no stirring is required.

PAYS FOR ITSELF

You'll find ANTI-FOAM 60 pays for itself by the way it reduces processing time, eliminates costly boilovers, increases kettle capacity. Incredibly small amounts are needed, for example: 5 PPM in yeast fermentation, 10 PPM in latex stripping and coatings, 50 PPM in pulp processing.

An addition to the well-known G-E Silicones SS-24 and SS-66, the new ANTI-FOAM 60 is designed primarily for aqueous systems, finds application in practically every industry—textile, paper, rubber and chemical—to name a few. Where can it help *you* control foam? *Try ANTI-FOAM 60 at our expense!*

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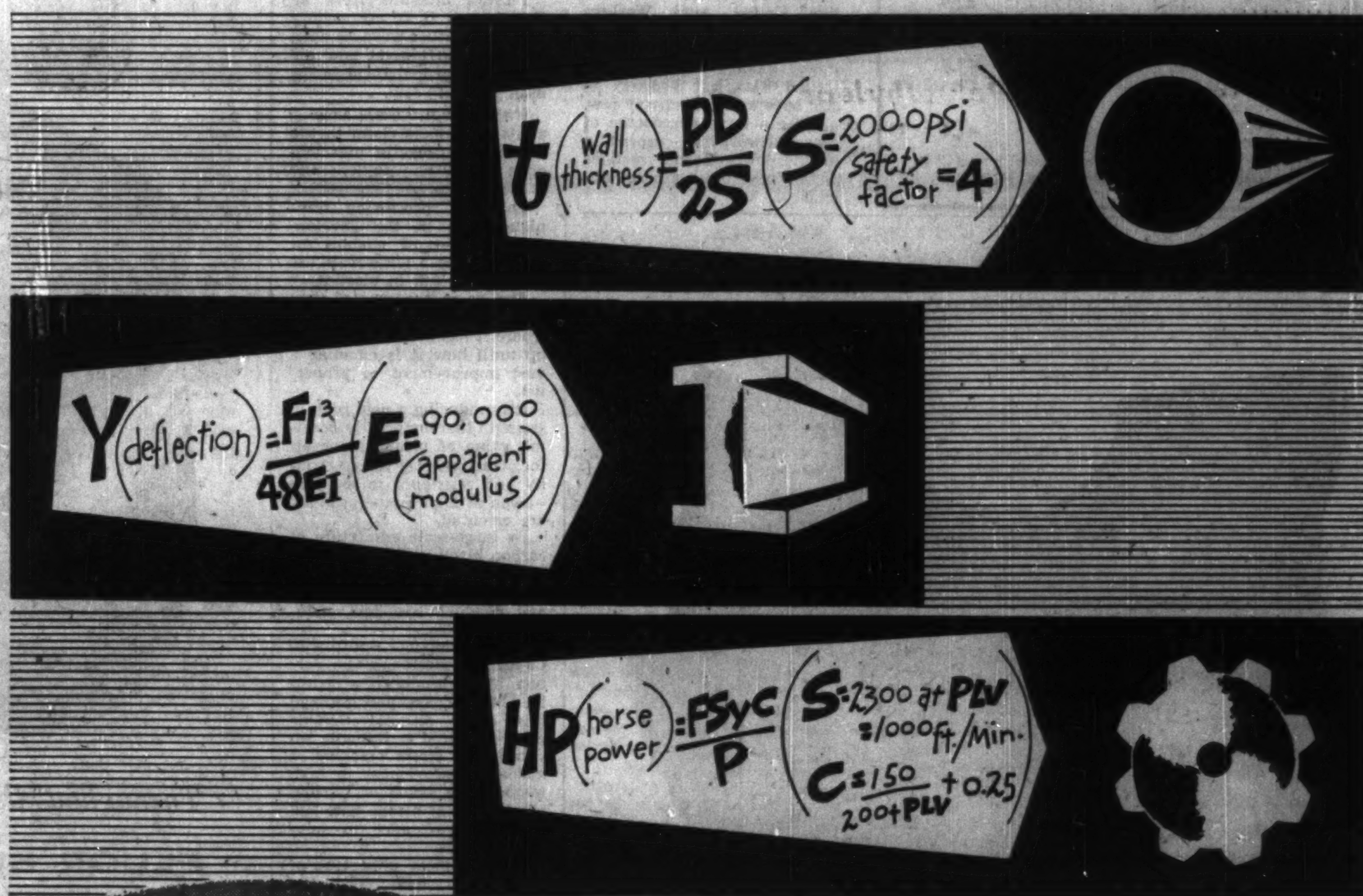

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"Zytel" nylon resin brings to Canadian industry a new concept in plastics utilization—the possibility of precise mechanical design.

"Zytel" nylon is the only thermoplastic for which most of the physical constants are known. For this reason production experts can forecast exactly how machine parts of molded "Zytel" will stand up in actual performance.

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"Zytel" nylon is inexpensive for many specialized applications. The fact that it can be molded without any machining operations permits it to be processed with substantial savings.

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Du Pont of Canada now makes "Zytel" in Canada—another product to bring better living to Canadians through Du Pont research.

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Wage Increases

More Pay the Labor Pattern

There are a lot of unions in Canadian chemicals, and they all see the field as one in which fat wage increases should be the pattern.

The industry is widely regarded as one in which a high degree of "automation" can and will greatly boost productivity per man.

The result: Unions keep on steady pressure for wage increases.

This is not true across the whole range of chemical industries. But it is true in those fast-growing sections of the industry which the public generally associates with the word "chemicals."

These are heavy chemicals, petrochemicals, plastics and the like.

That's where the big growth lies, where the capital investment is super-high, where the wage demands are stiffest.

The last two years have seen some of Canada's biggest wage-benefit gains made by chemical unions.

Most recent important industrial relations development in chemicals was the contract signed last spring following a dispute between the active, ambitious Oil Chemical and Atomic Workers and federally-owned **Polymer Corp.** in Sarnia.

The situation came very near a 1,600-man strike.

The new Polymer contract has the effect of leapfrogging wages above those in many other major companies, thus continuing the very substantial wage-boost-pattern which has been established in the industry.

Briefly the Polymer deal:

BRAIN CENTRE of a modern chemical plant is the control room. Here highly trained technicians and delicately balanced control equipment guide the entire operation.

—16-month contract ending in July, 1958.

—Immediate wage increases in the 18c-27c hr. range.

—Another 6c-10c in August this year.

—Another 5c-8c next spring.

—Total wage increase: from 29c to 45c, one of the biggest packages signed this year in any industry.

—Also included: Lump sum payments in lieu of retroactivity, more generous weekend and holiday pay, a variety of other benefits.

Union pressure for other companies to match and better Polymer rates is already being felt. Thus there seems no sign yet of any slowdown in the fast upswing of chemical wages.

The tough OCAW is the most publicized union in the field.

But the former AFL-TLC affiliate, International Chemical Workers, is the Canadian union with the largest number of chemical employees. It is a quiet but effective bargainer, putting emphasis on wage rather than fringe gains.

ICW has about 13,000 members in Canada, the majority in chemicals. Of OCAW's 8,000-10,000 members, the largest group is probably in oil refineries.

Also in the picture:

—National Federation of Chemical Workers — claiming 3,000 members in Quebec — of the Canadian and Catholic Confederation of Labor.

—United Mine Workers' catch-all District 50, which has only small numbers of chemical employees. UMW is not a member of Canadian Labor Congress, will take members wherever it finds them but also is vulnerable to raids by CLC unions.

—Some industrial unions like United Auto Workers have a few chemical workers. The two major Communist-tinged unions—Mine-Mill and United Electrical Workers — also have a comparatively few.

Quite a large percentage of chemical workers,— especially in the lower-income sections of the industry — are not unionized.

For this reason there always exists the possibility of a major organizational campaign.

Membership drives would become particularly likely if OCAW and ICW amalgamated. There have been unity talks between the two but it may be some time before they actually get together, if they do.

Wages in the highly capitalized chemical industry are higher than average, as is output per man.

In February this year here's how the average weekly wage of $67.90 in chemicals compared with certain other classifications.

—All manufacturing $64.42.

—Mining $77.82.

—Construction $72.18.

—Wood products $53.17.

—Paper products $77.13.

—Textiles — except clothing $50.92.

—Food and beverage manufacturing $55.07.

There's a wide range as between various chemical industries.

Wages in heavy chemicals, petrochemicals and primary plastics rate far higher than the average and among the highest in the country. Below the chemical average are rates in medicinals and pharmaceuticals, toilet preparations and polishes and dressings.

Generally, the wide pay range in chemicals results from the great variety of work. In certain of the industries large numbers of skilled workers are required, thus raising average income.

Since 1945 average hourly earnings in chemicals have risen about 140% compared with about 128% in all manufacturing.

In fact the wage for chemicals in 1945 was almost exactly the same as that for all manufacturing. Now it's somewhat higher. A main reason for this would be the fast growth experienced by higher - wage businesses such as plastics.

Average weekly wage in the industry has jumped about 120% since 1945 compared with around 110% for all manufacturing.

Chemicals have followed the general hours-of-work downtrend which has seen the average wage-earner in manufacturing reduce his hours from 44-45 in 1945 to around 40-41 today.

Chemical Wages

	Av. Hourly Earnings c	Av. Weekly Wage $	Av. Hours per Week
1945	68.4	30.78	45.0
1946	69.4	30.05	43.3
1947	79.9	34.36	43.0
1948	91.7	39.71	43.3
1949	98.6	42.89	43.5
1950	103.7	44.90	43.3
1951	118.2	50.71	42.9
1952	131.8	55.22	41.9
1953	138.0	57.68	41.8
1954	144.6	59.86	41.4
1955	150.7	62.39	41.4
Feb. 1957	165.2	67.90	41.1

These figures apply to the DBS classification "Chemical Products," in which there are reported 31,000 hourly-rated wage-earners.

Carbon Black Opens Plastic Horizons

Is carbon black going to bring as revolutionary a market expansion for plastics as it has for rubber?

Plastics manufacturers in Canada and U. S. are eagerly awaiting further word on what could be the biggest new development in their field in the last couple of years.

If the new process is as good as its developers claim then a whole new range of uses will open up for polyethylene and other plastics.

The new processing technique—long in the development stage—now enables for the first time a large-scale use of carbon black in plastics.

And as in the case of tires and mechanical rubber goods where it has been used mainly up until now it is effecting a vast improvement in properties.

It's producing a new peak in strength thereby greatly boosting value of plastic materials for structural use where rigidity and resistance to pressure —even at high temperatures— are essential.

By large-scale admixture of carbon black in the new process two of the most serious limitations of plastics — creep and fracture—are said virtually overcome.

The developer — **Godfrey L. Cabot Inc.**, Boston, major carbon black producers — claims its CAB-XL composition had this effect on polyethylene pipe: produced a dramatic resistance to stress cracking, a marked improvement in high temperature behavior, virtual elimination of plastic flow and improved resistance to solvents and oils.

Perhaps most important of all laboratory tests indicate the burst strength of the pipe has been doubled.

Improvement in Properties

The outstanding improvement in physical properties found in polyethylene pipe are duplicated in wire coverings, the developer claims.

Up until now most of the development work has been done with polyethylene.

The use of carbon black in plastics is not new. Up until now small amounts have been used for coloring and to protect against degradation from sun and weather.

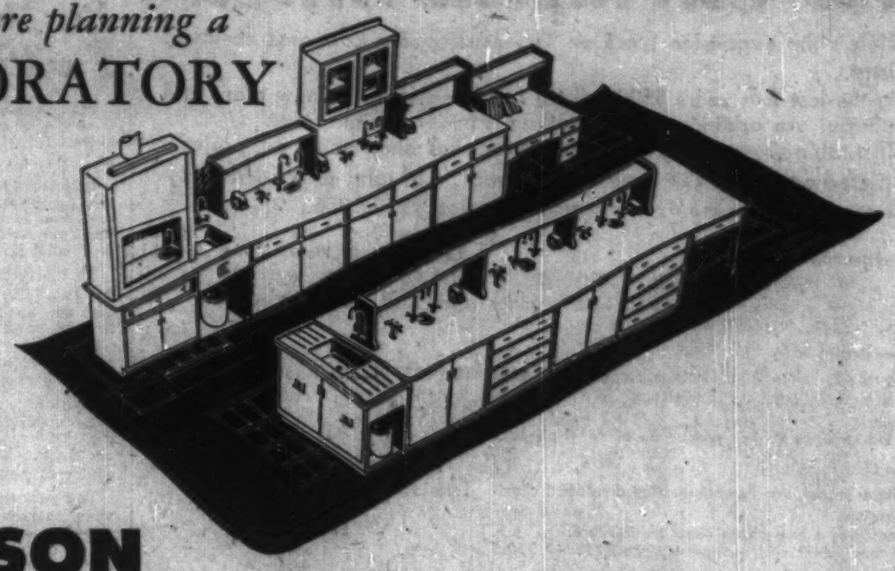
But much as they desired to increase the quantity of carbon black the plastics people found they could not do so without causing brittleness and cracking.

Both Canadian polyethylene manufacturers — **Canadian Industries Ltd.**, at its Edmonton plant, and **Union Carbide Canada** at its new Montreal East plant — are watching the carbon black process very carefully.

They see even greater market potential for this fast moving plastic if all the claims made for the new process proves up.

In this country also **Cabot Carbon of Canada**, Sarnia—Canadian subsidiary of the developing company—is in close touch with Godfrey L. Cabot on the new process.

If you are planning a LABORATORY



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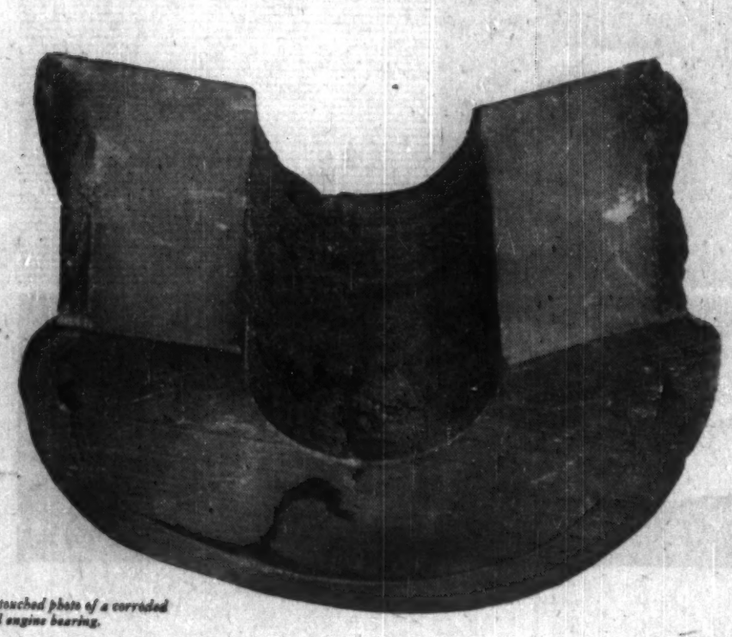

Unretouched photo of a corroded diesel engine bearing.

NOBODY HAD THE BEARING IN MIND

Neglect can be very costly when a diesel engine is involved. Here you see what oxygen cell corrosion did to a water-cooled bearing. Such bearing failure can be caused by inhibitor deficiency or a complete lack of water treatment. Resultant corrosion then does a thorough job of destroying the part. After that, the only thing to do is shop the engine and replace the bearing.

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No two people seem to agree on a definition for "petrochemicals," but everyone's agreed on the industry's great growth to date and on its future. By 1967 chemicals derived from oil and natural gas are expected to supply 50% of total Canadian needs.

Fluor Corporation, long a designer, engineer and constructor for the petroleum industry, was ready for this amazing growth, for the techniques, tools and materials of petrochemicals closely parallel those of petroleum refining. More and more petrochemical producers . . . as well as petroleum refiners, chemical-fertilizer producers and power companies . . . are finding that for efficiency, dependability and long plant life, you can be sure with Fluor.

Recently completed plant for Shell Chemical Corp. produces allyl chloride and chlorohydrins, important components of glycerine, in turn used for end products ranging from paints to explosives.

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Sulphur Aplenty

Big Exports by Early 1960's

Two of the most dynamic products in the whole Canadian chemical picture are sulphur and sulphuric acid.

Projects to recover and process the two elements will amount to well over $70 million.

When they come into capacity operation — sometime around 1960 — Canada will move from a major sulphur importing nation to the position of an important exporter.

The general Canadian market for both products is growing at a rapid rate in line with expanding industrial tempo.

But major factors behind the current expansion projects are associated almost completely with natural resources developments — stepped-up flow of natural gas in Western Canada in the case of sulphur, and the huge new mining markets opened up by leaching processes in use in the big Blind River and Beaverlodge uranium camps.

At full operating levels of the two "big inch" gas transmission lines now under construction — **Trans-Canada Pipe Lines** and **Westcoast Transmission Ltd.**—flow of gas out of Alberta will be up around the 650 million cu. ft. a day level.

A large part of this flow will come from "sour" gas fields—fields heavy in hydrogen sulphide content.

It's estimated now that recovery of sulphur from these fields will be 1,250-1,500 tons daily.

This does not include the anticipated heavy recovery of sulphur from the promising Savanna Creek gas field in southwest Alberta.

Since this is sour gas as well and will have to be processed for gas export there'll be a further production here of several hundred more tons daily.

300 Tons Daily

Other projects, like the proposed sulphur plant for the big sour gas Okotoks field of **Shell Oil** will have a capacity of 300 tons a day.

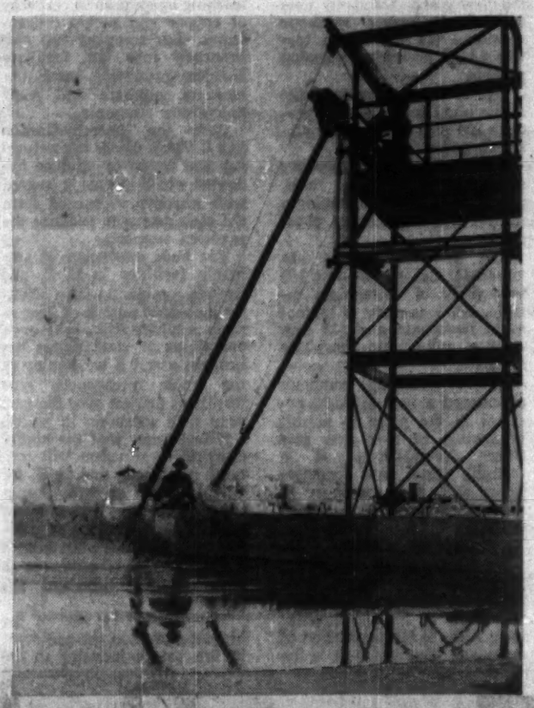
The presently operating Shell Oil of Canada sulphur plant at Jumping Pound and the **Royalite** sulphur recovery plant at Turner Field, could also supply additional tonnage. It's not difficult to see a potential output of 1 million tons a year.

With Canada currently consuming around 360,000-375,000 tons annually it looks as if we'll have sulphur "running out of our ears" by the early 1960s.

Since all sulphur will be produced in Western Canada and transportation costs are traditionally high it is a big question whether producers will be able to economically compete in much of the Eastern Canada markets.

It is a foregone conclusion to be competitive in the pulp and paper camps of Northern Ontario that western producers are going to have to scale plant prices down substantially from current levels.

SULPHUR: Canada's largest single sulphur output will come from this Pincher Creek, Alta., gasfield. Owned by B. A. Oil Co., the field will produce up to 800 tons a day.



SULPHUR: Molten sulphur (foreground) is sold as such or in solid form (background) from this Pincher Creek B.A. plant. Sulphur is extracted from "sour" natural gas. Biggest customer is the new $23 million fertilizer plant of Northwest Nitro-Chemicals at Medicine Hat, Alta.

One of the major producers in Alberta right now is pricing his sulphur at $26.50 f.o.b. plant.

To reach northern Ontario it's likely these prices will have to be scaled down to around $8-$12 at least.

It's highly unlikely that gas producers would even go for the main Quebec and Ontario markets close to ocean shipping since competition here with **Texas Gulf** sulphur would entail even sharper plant cuts.

This marketing problem has not reached the acute stages yet but even now producers and producers-to-be are scratching their heads over the problem.

Entrance of Texas Gulf—one of the world's largest producers—into the western picture—is seen a promising move.

It could be that in time a market demarcation line will be set up somewhere through northern Ontario—the southern division to be supplied from the Gulf Coast and northern section from Western Canada.

Eyes on U. S.

But western producers also have their eyes on U. S. midwest and northwest and offshore export markets.

Biggest sulphur producer will be the Pincher Creek gasfields controlled by **British American Oil Co.**

This—the biggest known gas field in Canada—will be hitched onto the Trans-Canada gas line late next year.

The gas is of the "sour" variety with hydrogen sulphide content running quite high.

To deliver clean sweet gas for export this H_2S will either have to be flared off or processed into elemental sulphur.

Plans at the moment are to produce large quantities of sulphur. The production will be stepped up as gas deliveries increase.

First stage of the sulphur plant was completed early this year with a capacity of 225 long tons daily.

Ultimate plant capacity will be over 800 tons daily. At that time the Trans-Canada line will be drawing up to 170 million cu. ft. of gas daily from Pincher Creek.

First shipments of sulphur are going to the recently completed fertilizer plant of **Northwest Nitro-Chemicals** at Medicine Hat.

A contract for sale of the large supplies of sulphur that are to be made available from processing Peace River gas, was completed last year with **Jefferson Lake Sulphur Co.** and **Pacific Petroleums.**

This deal involves construction of a $1.8 million sulphur processing plant at Fort St. John, now nearing completion.

This plant will use the Frasch process and will have an early capacity of 300 long tons daily.

Less Than Half

Within five years production is expected to reach the 500-600 ton daily level. Since total West Coast demand by the pulp and paper users—biggest market—is running less than half of this there'll be plenty of sulphur available for export markets.

Canada's entire 34,784-ton sulphur output in 1956 came from sour gas from two producers—Shell Oil Co. and Royalite Oil.

Output from this source is expected to remain at somewhat the same level in the current year.

But this production is now being supplemented by output from the new sulphur plant of B-A Oil at Pincher Creek.

The first production of elemental sulphur in Eastern Canada will start around mid-summer when the new $1.3 million sulphur plant of **Laurentide Chemical & Sulphur Co.** comes into operation at Montreal East. Productive capacity is set at 33,000 long tons annually.

The new plant will recover sulphur from hydrogen sulphide gases derived from the oil refinery gas streams in the area.

Gas supply arrangements have been made with five refiners—**B. A. Oil, Canadian Petrofina, Imperial Oil, McColl-Frontenac** and **Shell Oil**—and one chemical company, **Union Carbide Canada.**

To be sold largely to pulp and paper mills in the Montreal area the sulphur will replace imported supplies presently brought in from U. S. Gulf Coast area.

Sulphuric acid — another form of sulphur—long hailed as one of the best barometers of industrial health is in a buoyant expansion trend in this country.

Not only is demand increasing steadily from the broad range of industry customers but a huge and entirely new market — uranium oxide recovery—has been superimposed on the long-established market.

The rapid emergence of Canada as one of the leading world uranium producers is having a major impact on the chemical industry here and particularly the sulphuric acid picture.

The acid leach process for recovery of uranium precipitates, using acid as the leaching agent, has been found the most efficient and economical process for most Canadian uranium operations.

New Acid Plants

Since most uranium mines are in remote areas, far from existing acid sources, it means construction of new acid plants close to mining operations.

Sulphuric acid requirements of the big Blind River, Ont. uranium camp — the largest camp in the world—is estimated to reach around 1,500 tons daily within a year.

First stage in Noranda's $10-$12 million acid plant at Cutler, Ont. to supply bulk of the Blind River acid requirements has been completed and plant has been turning out some 400 tons daily based on imported sulphur from U. S. Gulf Coast points.

But plant will be shortly stepped up to 1,000-tons-a-day level and will be operating on Noranda's own pyrites transported from the Rouyn, Que. area.

This will probably represent the largest acid operation in Canada although the big acid plant of **Consolidated Mining & Smelting** at Trail, B.C., is running close to this level.

At the same time **Canadian Industries Ltd.** is building an additional $3 million sulphuric acid plant at Copper Cliff, Ont., to convert waste sulphur gas from **International Nickel Co.**'s new iron plant into sulphuric acid at the rate of 300 tons daily. The acid will all go to Blind River for use by two companies in extraction of uranium oxide.

Gunnar Mines Ltd., big Beaverlodge area uranium producer, has its own sulphuric acid plant near the mine and production is believed running around 50,000 tons annually.

Elsewhere CIL is planning to build a new sulphuric acid plant at Beloeil, Que. **Shawinigan Chemicals** has brought its new acid plant into production at Shawinigan Falls, Que. **Nichols Chemical** is completing its 60% expansion at its Valleyfield, Ont. plant where acid is recovered from pyrites.

Noranda's integrated sulphur, gas and iron sinter plant, at Port Robinson, Ont. has been operating for over a year feeding sulphur dioxide gas to the nearby **North American Cyanamid** plant which in turn processes it into sulphuric acid.

Canada's acid output is running at a new peak, around 1.2 million tons a year.

This will be boosted considerably as new planned expansion programs are completed in 1958 and 1959.

New Chemical Sinews

(Continued from page 57)

Shell Oil Co. of Canada			
New detergent alkylate plant to come into operation later this summer.	Mid 1957	Montreal East	5.0
First Canadian plant for production of Epon epoxy resins.		Montreal East	..
Facilities for manufacture of methyl ethyl ketone and secondary butyl alcohol.	Early 1957	Montreal East	..
Union Carbide Canada			
Unique new petrochemical plant for production of polyethylene resin, ethylene oxide, ethylene glycol, etc.	Mid 1957	Montreal East	25.0
Expansion of facilities of **Bakelite Co.** division by 60% for production of phenolic resins, phenolic laminates, phenolic resin foam facilities added.		Belleville	..
New oxygen plant by Linde Air Products Division for Algoma Steel Corp.'s expanding facilities.	Mid 1958	Sault Ste. Marie	3-4

Spent on new plant, equipment and expansion from 1952-1956—$38 million. Hope to spend an additional $42 million on new plant and/or expansion projects between 1957 and 1959.

New Blasting Agent Rocks Explosives Field Experts

Hailed as one of the most important developments in the explosives field in many years a new form of "on the job" blasting promises to cut costs sharply in many types of jobs.

The new blasting agent is simply ammonium nitrate — a well-known form of chemical fertilizer—mixed with ordinary fuel oil and set off by a primer stick of high explosives.

The blasting agent can be mixed on the job right in the boreholes. Usual procedure is to pour the ammonium nitrate —in dry prill form—into the boreholes and to add about one gallon of fuel oil for every 80 lbs. of prills.

Trial blasts in Canada so far have indicated that the blasting agent is suitable for open pit mines and quarries. But explosives experts are exploring other possible fields as well.

"Developments in this field are today moving at such a rapid pace that modifications of the present materials and handling techniques may come from day to day," M. J. Watson, general manager of Canadian Industries Ltd.'s explosives division, states.

The most widespread use of "on the job" sensitized ammonium nitrate to date has been on surface operations where the work is relatively dry, where large diameter holes are employed, where the formation is not too hard-breaking as in shale, slate, limestone and sandstone.

Up to now the new blasting agent has not been used extensively in wet areas.

Where the bottoms of holes are wet, the usual practice is to load water-resistant high explosives until the charge is above the water line.

The oil sensitized ammonium nitrate is then used as top loads.

Ammonium nitrate is relatively safe to transport and handle so long as it does not come into contact with any sensitizing agents, such as oil.

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Fertilizer Industry

'Magic' Plant Foods Pep Tired Soils

Fertilizer is about as unromantic a subject as you can think of.

But add the word "chemical" to it and then study what it's been doing for Canadian—and world—farmers year after year and it becomes one of the most dynamic subjects in science's exciting book of achievements.

When the chemist and his new magic brew can help a farmer grow one and a half bushels of wheat where only one grew before the implication for the fast-expanding populations of the world is obvious.

The chemist with the mounting tonnages of fertilizers pouring out of his plants has become one of the best answers to steadily rising farming costs.

In Canada this is a $84 million a year industry with an annual application of 800,000 tons of fertilizer to Canadian fields. Although the quantities vary from year to year, the long-term trend is upward. Canadians are using twice what they did 20 years ago.

The whole fertilizer business revolves around three basic plant foods — nitrogen, phosphoric acid (phosphates) and potassium (potash).

The production of these from nature in increasingly concentrated form and at prices the farmer can afford to pay has become a complicated, multi-million-dollar business calling for continual expansion of chemical plant facilities, increasing ingenuity on the part of the chemist.

In Canada it has led to:

- Development and rapid expansion of one of the largest, most successful chemical operations in the world—that of **Consolidated Mining & Smelting Co.** at Trail, B.C.
- Some $60 million in expansion and construction of new chemical plants over the past five years for production of ammonia and other nitrogen-type fertilizers.
- Large-scale expansion in sulphuric acid capacity.
- Development of the largest potash deposits on the continent—the estimated 100-billion-ton reserves in central Saskatchewan.
- Unique integration of mining and fertilizer operations.

Actually the part the chemist plays in the fertilizer business is the harnessing of the elements which go to make up the earth and the atmosphere around it and put them to work raising crops.

Nitrogen Is Magic

Big gun among the magic three plant foods is nitrogen. It makes up around 78% of the air we breathe. It's one of the most important of all plant foods responsible for green growth. But unfortunately most plants are not equipped to take it out of the air and it's rapidly depleted from the soil.

Recovery of nitrogen from the air mainly for fertilizer has represented one of the fastest growing segments of the whole chemical industry since end of World War II.

The second major plant food is phosphorus, processed as superphosphate and ammonium phosphates from imported rock. Virtually all of this rock is imported into Canada mostly from Florida and it represents a $5.2 million a year import bill supplemented by an additional $5 million imports in phosphate fertilizers.

The third item is potassium (potash) imported as potassium chloride or sulphate. This runs to around $5 million a year representing some 45,000 tons. Currently Canada is getting over two-thirds of its potash from U. S. and the rest from Europe.

But a large-scale program is getting under way in the known and up-to-now undeveloped Saskatchewan potash deposits that will not only make Canada self-sufficient in this chemical but is seen here as becoming a major exporting source as well.

Up to now by far the biggest plant expansion programs have been for manufacture of ammonia — a nitrogen compound —with bulk of the ammonia going into mixed fertilizers. An important trend gathering momentum in recent years in parts of U. S. and now in early stages in Canada is for direct application of ammonia — in anhydrous form —to the soil.

Several other growing industrial markets for ammonia, e.g. refrigerants, other chemicals operations, explosives, synthetic textiles, pulping process, have helped to build up a broadly diversified market for this old-time chemical workhorse.

Seven ammonia plants have been built — or greatly expanded — in Canada over the last five years, including the big 200 tons-a-day plant of **Canadian Industries Ltd.** at Millhaven, Ont., which comes into operation in a few weeks.

Consolidated Mining & Smelting expanded its Calgary plant to provide more ammonia both for mixed fertilizers and production of anhydrous ammonia.

Northwest Nitro-Chemical Ltd. has built an ammonia plant as part of its big $23 million integrated fertilizer operation which came into first operation this spring at Medicine Hat, Alta.

Dow Chemical of Canada has built two ammonia plants at its big Sarnia works. With the completion two years ago of its big modern plant company now has capacity of around 100 tons daily of ammonia.

North American Cyanamid has expanded ammonia-making facilities at Welland, Ont. to make available more supply for its new plant unit to turn out liquid nitrogen fertilizers.

Canada's first plant to produce urea, now under construction on Hamilton's waterfront, will be completed next year. This unique new plant of North American Cyanamid is seen moving Canada another step forward toward self-sufficiency in raw materials for the fertilizer, chemical and plastics industries.

Urea provides one of the most concentrated forms of nitrogen for plant growth. North American Cyanamid expects the urea to come out of their new plant to have a 46% nitrogen content.

It will have two major market outlets in the fertilizer industry:

1—Can be sold directly to distributors for direct application to the soil either in solid pellet form or liquid form;

2—Will be sold to fertilizer mixers for use in mixed fertilizers with phosphates and potash.

Unlike ammonium nitrate which is generally used to give plants a rapid "shot in the arm," urea acts a little more slowly, spreading its "boosting" effect over a longer growing season. For this reason, one of its big direct application uses will be as a top dressing particularly for hay and pasture.

The new urea plant is an unusual example of industry integration. Byproducts from **Dominion Foundries & Steel Co.** will supply main raw materials for the new urea plant. Hydrogen from Dofasco's stripped coke oven gases, carbon dioxide from blast furnace gases, and nitrogen byproduct of Dofasco's oxygen extraction from the air are the three major raw materials used by North American Cyanamid.

Biggest in West

The biggest development in the Western Canada fertilizer industry has been completion of the huge $23 million fertilizer plant of Northwest Nitro-Chemical Ltd. at Medicine Hat, Alta. First shipment of ammonium nitrate moved out of the new plant early this year.

When in full production, plant will have an annual output of 140,000 tons of ammonium nitrate and phosphate fertilizer. Markets will be in northwest U. S., as well as three Prairie provinces.

At peak capacity plant will use 135 tons daily of sulphur shipped from Pincher Creek gas fields, 160 miles away, and 135,000 tons annually of phosphate rock, brought 622 miles by rail from U. S. during summer and stockpiled.

It was the availability of two of its most important raw materials—natural gas and sulphur—plus proximity of large agricultural markets which brought about establishment of the new plant. Company uses the gas to obtain synthetic ammonia via the steam methane high pressure reforming process.

One of the four major units at the plant is designed to produce 100 tons of synthetic ammonia per stream day.

Other process units produce sulphuric acid, nitric acid, phosphoric acid, ammonium nitrate and ammonium phosphate.

The processing units are automatic and can produce 105 tons daily of ammonium nitrate, 200 tons daily of ammonium phosphate and 125 tons daily of ammonium phosphate sulphate.

Several weeks ago company announced a new $150,000 addition to the plant to permit production of four new fertilizer formulations. It is thought these new formulations will put company in stronger position to establish outlets.

Integrates Plant

An all-important part of the **Sherritt-Gordon Mines** integrated metallurgical and chemical plant at Fort Saskatchewan, Alta., is for production of ammonia. The ammonia is the leaching agent used in recovery of copper and nickel concentrates. But company has also branched into the fertilizer business producing some ammonium sulphate and some anhydrous ammonia.

Both the Sherritt-Gordon and C.M.&S. plants use natural gas and steam to produce hydrogen which in turn is reacted with nitrogen recovered from the atmosphere to produce the required ammonia.

The huge expansion of ammonia facilities in U. S. and Canada combined with a steadily increased output of ammonium sulphate from coke oven operations of steel plants has brought about a weakening in the whole nitrogenous type fertilizers market over the past year with softening in prices.

It looks now that the highly competitive situation will continue in Canada and U. S. for another year or two. Long-term trends are all in favor of steadily expanding use of nitrogen type fertilizers along with a growing use of ammonia in certain other industrial applications.

The decision by two of the biggest names on the continent in the potash industry to develop the Saskatchewan reserves is probably the biggest news in the whole fertilizer business in this country.

Up to now limited markets and costly mining operations have held up development of the huge Saskatchewan deposits.

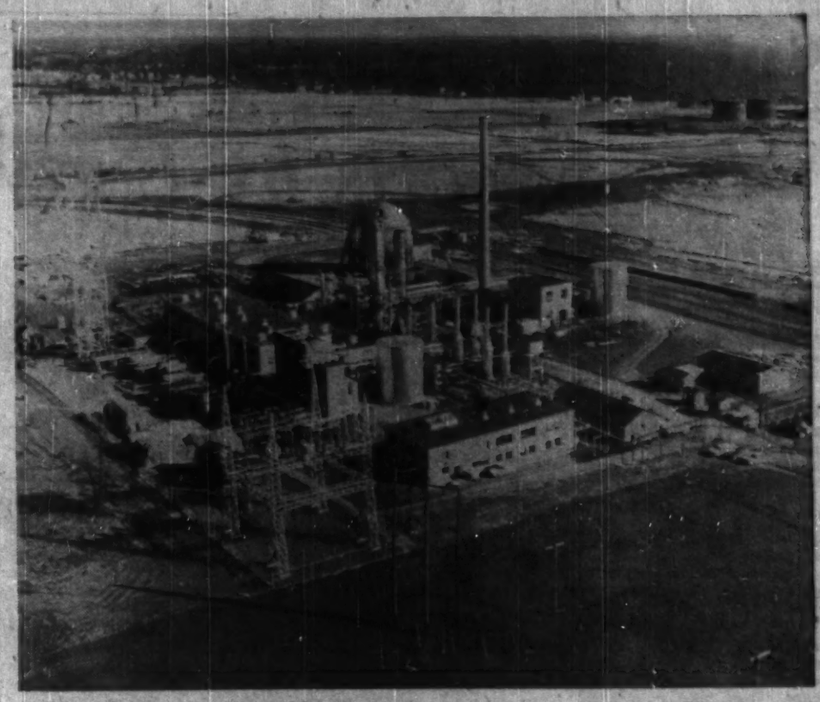
The fact that the Canadian prairies are not an important market, yet, for potash fertilizers—the soil being fairly well supplied at the moment—has been a big stumbling block to development.

However, big companies in the field like **Potash Co. of America** and **International Minerals & Chemicals**, both of which have announced definite development plans for Saskatchewan, now feel that the Saskatchewan potash can be economically marketed in parts of the U. S. midwest and northern U. S. states.

Fertilizer authorities estimate that Canadian potash will be able to compete for some 40% of the big U. S. potash market, currently running around 2 million tons annually.

Commenting on the character of the Saskatchewan ore, Louis Ware, International

(Continued on page 61)



LARGEST AMMONIA PLANT in Eastern Canada: Canadian Industries Ltd.'s new $9 million unit at Millhaven, Ont., near Kingston. The plant will have a production capacity of 200 tons of anhydrous ammonia per day when it goes on stream in a few weeks.

Fertilizer Consumption

Fertilizer Consumption in Eastern Canada:

Fertilizer Year Ending June 30	Quantity Tons
1952	652,000
1953	686,000
1954	706,000
1955	705,000
1956	708,000
1957 (forecast)	725,000

Plant Food Consumption Trends in Eastern Canada:

Fertilizer Year	Quantity in tons — Nitrogen	Phosphoric Acid	Potassium Oxide	Total
1952	24,000	78,000	56,000	158,000
1953	29,000	85,000	65,000	179,000
1954	30,000	87,000	68,000	185,000
1955	33,000	88,000	72,000	193,000
1956	33,000	90,000	75,000	198,000

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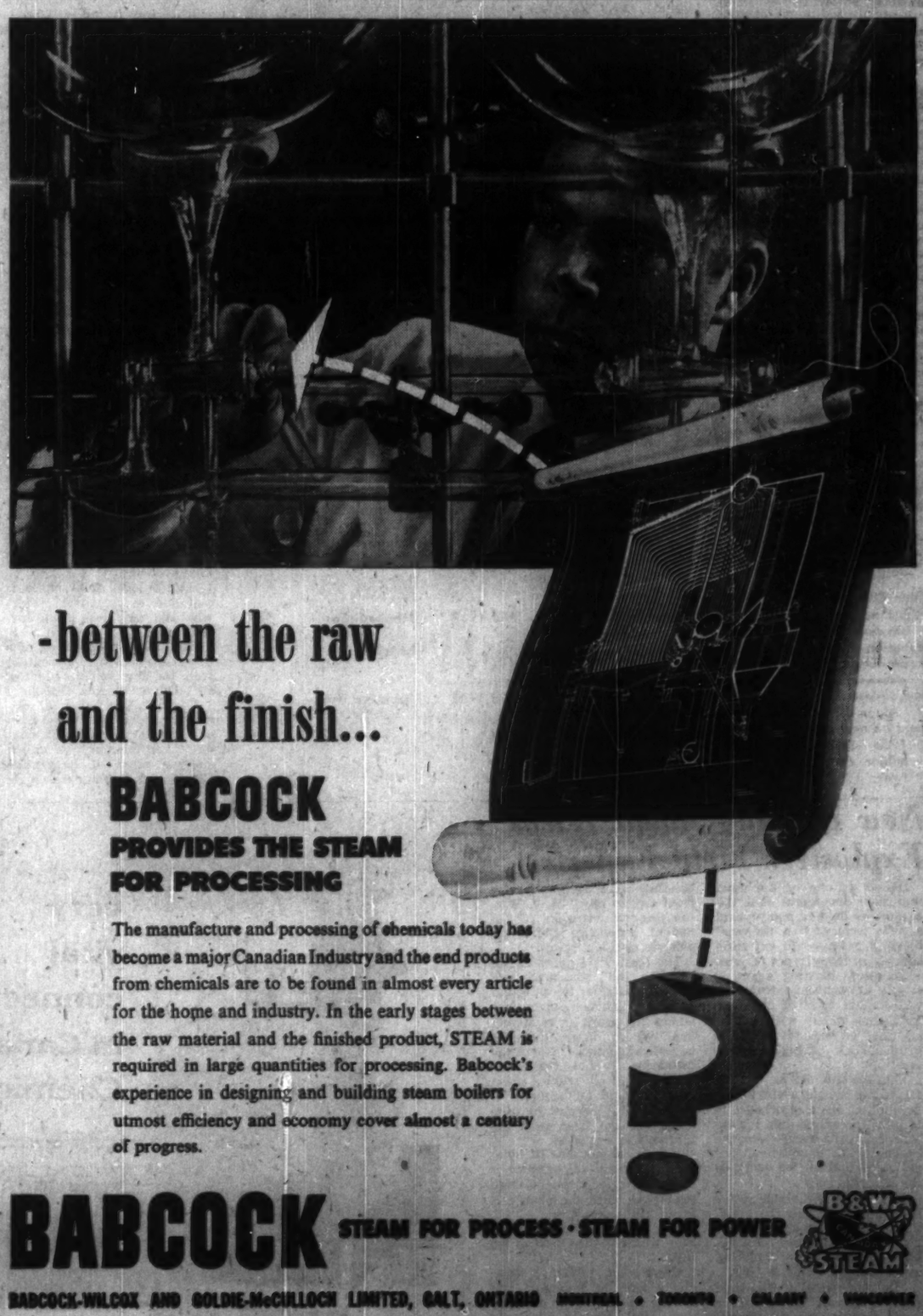

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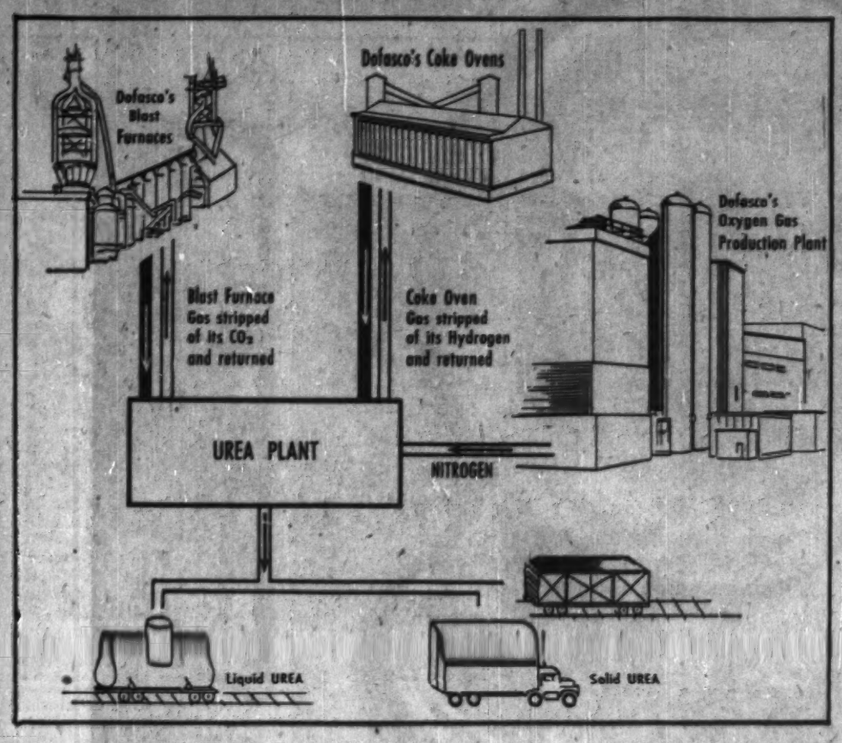
Cyanamid-Dofasco Urea Project



Fertilizers

World Top Exporter

(Continued from page 60)

Minerals & Chemicals president, stated recently, "It has been thoroughly drilled and has proven of higher grade than that of New Mexico."

Mr. Ware also stated that his company's acreage contains ample reserves for a mine that will produce at more than twice the rate of company's Carlsbad, New Mexico mine. In recent years company has been supplying about 20% of the potash production in the U. S.

Both the International Minerals and Potash Cd. of America projects are expected to come into operation in 1959.

Fertilizer Analysis

Possibly the single most important trend in the fertilizer industry is the move toward higher analysis fertilizers with nitrogen, particularly, stepping up its proportion in most mixed fertilizers. This trend is a direct result of higher farming and transportation costs.

Farmers today want the greatest number of food units for their soil their money can buy. They don't want to pay for extra handling and transportation charges for the same final results, administered in say two applications.

As a result the popular Ontario fertilizer analysis of 20 years ago, 2-8-4—has now become 4-42-20 (the proportions are always in this order—Nitrpgen, Phosphate and Potash).

Anhydrous ammonia plays an important part in this switch to higher analysis fertilizers. It is the most concentrated of all nitrogen fertilizers and besides being used for direct application to the soil, it is also used to make ammonium nitrate and many mixed fertilizers.

The anhydrous ammonia is usually applied before seeding by special equipment that drills it into the ground in gaseous form. At seeding time the complete mixed fertilizer can be rounded out with additions of the other in such formulations as 0-10-10, 0-20-20, 2-24-20.

Direct application ammonia has already been used in southwestern Ontario on such cash crops as corn, sugar beets, wheat, pastures, etc.

Both Dow Chemical and North American Cyanamid have expanded nitrogen plant equipment to enable a sizeable expansion of the direct application market in southwestern Ontario.

Big Sales

Fertilizer purchases by Canadians in the crop year, June 1955 to June 1956, amounted to 800,680 tons, up slightly from previous crop year's 790,774 tons.

Ontario alone consumed over half of the total—429,449 tons—with heaviest use in the rich cash crop counties of Kent, Essex, Norfolk, Elgin, Oxford.

Of total fertilizers used in Canada 81.5% was made up of mixed fertilizers and the balance (18.5%) of straight materials. Most popular mixed fertilizer was 2-12-10 (158,195 tons) followed by 5-10-13 (107,577 tons).

During the past three years, 1954 to 1956, fertilizer consumption has leveled off in eastern Canada—biggest consuming area—at the 705,000 ton level. But because of higher concentration of plant food contained, consumption of the three principal plant foods—nitrogen, phosphate and potash, continued to increase to a record total of 198,000 tons last year.

For the year ending June 30, 1957, an increase in fertilizer consumption of around 2½% is looked for, with total plant food used probably reaching a new peak of 205,000 tons.

A noticeable trend in eastern Canada is the greater reliance farmers are placing on soil testing to determine fertilizer requirements. This suggests that progress is being made in the education of farmers to consider fertilizer as an investment that reduces unit cost of production.

Trade Picture

Canada is both a large importer and exporter of fertilizer materials. Exports amounted to 832,471 tons of materials and 38,356 tons of mixes, an increase of some 6.5% from previous year. Ammonium sulphate, ammonium phosphate, ammonium nitrate and cyanamide were the principal materials exported.

Imports rose to 907,599 tons (935,338). More important items were natural phosphate rock (492,060 tons), superphosphate 216,887 tons, muriate of potash 134,496 tons, nitrogen solutions 29,510 tons and sulphate of potash 16,181 tons.

Canada's largest producer—and exporter—of fertilizer materials — Consolidated Mining & Smelting Co.—turned out 673,000 tons of dry fertilizer in 1956 and boosted tonnage of liquid fertilizer to 20,000 tons.

Fertilizer demand this spring has been running a little better than anticipated and outlook is for somewhat higher over-all sales volume this year.

Dollar volume, however, will probably be down because of lower prices.

Sales were off on the Canadian Prairies last year because of somewhat smaller acreage and slower Government payouts on grain sold.

More Competition

The highly competitive market conditions growing up, particularly in company's chief marketing area—U. S. Pacific Northwest — combined with lower volume sales in Canada has been forcing a greater development of the Far Eastern market—Korea, Hawaii, etc.

Even here, the market is more difficult than it has been because of re-entry on a large scale of Japanese producers into the export market.

Increasingly the fertilizer producer is being forced to hold the stocks. The farmer has now become adverse to tying up money in inventory. This has meant a big warehousing headache for producers.

This, combined with the fact that over 50% of all fertilizers business is done in the three months, March, April, May, has boosted the "uncertainty factor" in the whole business. C.M.&S's Kimberley plant was closed down last summer for a stretch—July to Oct.—because of reduced markets.

Ethyl Corp. of Canada

Creates New Chemical Market

The latest addition to Sarnia's spreading Chemical Valley — the $11 million anti-knock compound plant of **Ethyl Corp. of Canada** — came into initial operation last fall and is now producing up to the peak of sales requirements.

Actually market demand for Ethyl's product is running ahead of sales estimate made prior to decision to build in Canada. Production this year will reach the figure that had been forecasted for 1958.

Anti-knock compound, tetra-ethyl lead, is a vital ingredient of modern gasolines. All the refinery companies in this country are large-scale purchasers. Actually market requirement for TEL have increased sharply in last few years with the trend toward higher and higher compression auto engines.

Here's why:

Anti-knock compound is still the most economical, effective refinery tool available for increasing the anti-knock, or octane number, of gasolines. The greater the compression of the fuel in the chambers of the modern auto engines, the greater the tendency to knock, or flash fire which means dissipation of power. The compound largely does away with the flash fire.

First plant of its kind in Canada, the Ethyl plant has a capacity sufficient to look after the entire domestic market. It shares the market with **Du Pont Co. of Canada (1956)** whose parent firm is a major producer in U. S.

Major raw materials on which the highly complicated processing steps are based are ethyl chloride, lead and sodium. Two intermediates are ethylene di-chloride and ethylene di-bromide. Currently all the ethyl chloride and sodium requirements have to be imported from U. S.

New Plant Possible

It is thought almost certain that a new plant will go up in the Sarnia area — based on ethylene and salt—to supply the ethyl chloride requirements within the next couple of years. A sodium plant—a considerably heavier capital undertaking—is expected to follow some time later.

Ethyl Canada is buying its entire lead requirements, running about 14 million lb. annually at present production stages, from Canadian mines.

The plant consists of two major buildings plus a farm of eight storage tanks, six for raw materials and two for finished product. The central process or manufacturing building is a multi-storied structure. It houses the alloy, ethylation, purification, blending, lead recovery, refrigeration, and laboratory facilities.

The anti-pollution equipment, costing about $500,000, returns water to the St. Clair River actually purer than when originally piped to the plant for processing.

The plant has been designed and built so that it can be expanded readily without any interruption in production.

Company officials are not too concerned about any sudden auto industry switch to a radically different type of engine which, of course, could change the entire fuel requirements.

They are watching particularly the progress of the gas turbine and the free piston engines.

Right now they think either, or both, of these engines are some years away; that when the change comes—if it does—it will be a gradual one giving the refinery industry and themselves plenty of time to adjust to the new set of conditions.

Ink Industry

More Colors, More Surfaces

The printing ink industry is one of Canada's least known industries—and yet it is one of the oldest and one of the most soundly based.

Its sales last year were a meagre $15.8 million but this figure is no indication of the industry's significance or enterprise.

The ink business is one of the few industries left where the small firm can thrive and where craftsmanship predominates.

It is estimated by the National Association of Printing Ink Makers in the U. S. that 750,000 different kinds and shades of ink are made up every year.

The reason for so many formulations is that most ink users are in the advertising and packaging field.

They place value on the fact that the ink they have chosen for a particular campaign or brand identification cannot be copied accidentally by some other company.

For this reason, the ink manufacturers are not obliged to carry much stock.

The small firm has every opportunity to compete with the large. In both cases it is a question of mixing a customer's order in accordance with some jealously-guarded formula of the firm's chemist.

According to the Dominion Bureau of Statistics there are 33 companies in the ink industry in Canada. Their combined total of employees is 993.

However, the Canadian Printing Ink Manufacturers Association only has eight members and these eight account for at least 80% of the business.

The eight are all in Toronto. They are: **Ault & Wiborg Co. of Canada, Bush-Federal Ltd., Canada Printing Ink Co., Canadian Fine Color Co., General Printing Ink Corp. of Canada, Hendershot Inks Ltd., Manton Printing Inks Ltd.** and **Sinclair & Valentine Co. of Canada.**

The association has been established since 1920. It is affiliated with the National Association of Printing Ink Makers and can consequently benefit from the findings of the National Printing Ink Research Institute at Lehigh University, Bethlehem, Pa.

One of the Canadian industry's biggest handicaps is the small size of the domestic market. An example of this is in the printing of color comics and magazine covers, which, because of the capital cost of installing specialized machinery in Canada, is carried out in the U. S.

But the Canadian ink industry is confident about its place in the future, even though this may be in packaging rather than publishing.

The supermarket trend in retailing is making packaging an increasingly important business.

With self-service and fierce competition for shelf space, products sold in supermarkets depend almost entirely for survival on good packaging and advertising.

The current trend in packaging is to more elaborate color printing and to newly-developed materials. Both these factors provide a challenge for the ink makers.

There is a constant need to find inks that will perform well on such materials as polyethylene and pliofilm.

Inks for packaging now represent about 40% of the industry's sales in the U. S.

This proportion is growing larger every year. At present it adds up to about $100 million of the industry's $250 million a year sales.

Exports account for about $18,000 of the Canadian printing ink industry's annual output. Imports amount to $1 million a year.

There is very little fear in the industry of competition from imports.

Most sales of ink are direct from maker to customer, although a few jobbers operate in Winnipeg and further west. Jobbers handle most of the imported inks.

Unless foreign ink makers set up servicing facilities in Canada there is little likelihood of their sales increasing.

Customers are not keen to use an ink that might prove to have poor performance and for which supplies might not be readily available.

Imports have remained very constant in the last four years. The 1953 dollar total was $985,557.

Last year it was $1 million. In 1953 about $828,000 of the imports came from the U. S.

Lots of Ink

HERE'S PATTERN OF INK IMPORTS

	Dollars			
	1953	1954	1955	1956
United Kingdom	135,674	206,611	224,058	191,185
Belgium	315	1,788	2,230	3,030
Germany	1,023	1,280	14,732	22,245
Netherlands	103	308	1,757	65
Austria	....	....	.....	468
Japan	....	....	.....	1,366
U. S.	828,442	710,828	165,903	787,018
Total	985,557	920,815	1,008,680	1,005,897

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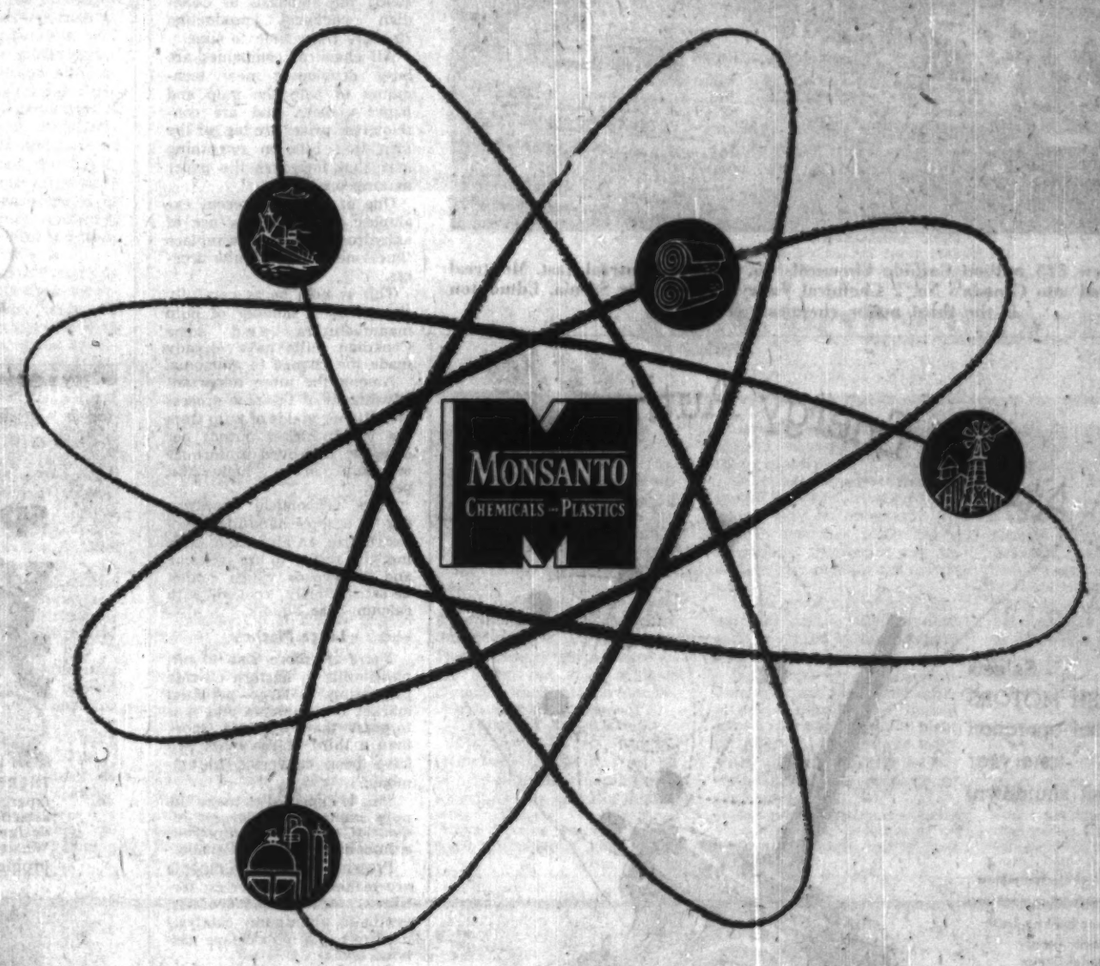

Almost every manufacturing process uses one or more Monsanto chemicals and plastics

FROM AGRICULTURAL CHEMICALS to plastic molding compounds... from adhesives to pharmaceuticals... Monsanto creative chemistry daily meets the ever-growing needs of Canadian industry.

Lustrex styrene plastics, developed by Monsanto, are used to produce tough refrigerator and television parts. Paper makers find Monsanto's Mersize sizing agents and Scriptite urea wet strength resins greatly improve the quality and durability of printing and kraft papers. Formulated into fertilizers and herbicides, Monsanto agricultural chemicals like the Ammonium Phosphates and 2,4-D help the nation's farmers to get rid of crop-killers and reap a more abundant harvest.

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Pulp and Paper

New By-Products from 'Waste'

The prosperity and growth of the chemical industry is tied fairly and squarely into that of pulp and paper.

Both industries rely heavily on each other.

For instance, this year pulp and paper companies should buy over $64 million worth of chemicals to be used in the production of woodpulp, another $60 million plus of papermaking chemicals.

While those are the two big ones, forest industries draw on chemicals for scores of other needs, such as fire-fighting, insect control, etc.

Pulp and paper companies themselves in recent years have become chemical producers on quite a large scale.

New by-products are constantly being discovered from the bark and pulping liquors that used to pour wastefully down the drain.

But it is in the mills themselves, in the actual production of pulp and then paper, that chemicals are king. To the average layman, the intricacies of paper production—as the production of most anything else—are too complex to have rated careful study.

In fact the production of pulp and paper is a key chemical operation.

For instance a ton of newsprint consists of some 85% groundwood and 15% pulp. This pulp can be sulphite, sulphate or semi-bleached kraft, depending on the required finished result.

Different Demands

These are technical titles for various pulp processing sequences, each used for a specific purpose, each making different demands on the chemical industry.

Here are some typical formulae for producing different pulps:

For one ton of semi-bleached kraft:

2.2 cords of wood (this is in Eastern Canada, in the West a slightly different amount is used).
170 lb. of salt cake or sodium sulphate
75 lb. of limestone
40 lb. of caustic soda
80 lb. of chlorine
10 lb. of sulphur dioxide
65,000 gal. of water

For fully bleached kraft one needs:

2.4 cords of wood
180 lb. of salt cake
80 lb. of limestone
90 lb. of caustic soda
130 lb. of chlorine
30 lb. of chlorine dioxide
20 lb. of sulphur dioxide

Pulp, Paper Chemicals

Principal Chemicals Sold to Pulp and Paper Industry

Chemical	Tons	Value $
Sulphur	300,825	10,229,687
Limestone	413,352	2,313,530
Liquid Chlorine	102,157	7,812,762
Salt cake	137,575	4,135,798
Caustic Soda	96,239	6,689,249
Sulphur Dioxide	44,122	1,070,838

(1955 Dominion Bureau of Statistics Figures, most recent available)

For one ton of semi-bleached sulphite:

2 cords of wood
120 lb. of sulphur
320 lb. of limestone
70,000 gal. of water

For fully bleached sulphite pulp:

2.4 cords of wood
235 lb. of sulphur
350 lb. of limestone
40 lb. of caustic soda
80 lb. of chlorine
10 lb. of sulphur dioxide
80,000 gal. of water

There are different reasons for each of these different sorts of pulp production. By and large the sulphite process is simpler than the kraft, but the kraft system can be used on almost any kind of wood, while sulphite is largely restricted to spruce, fir or perhaps birch.

Not Wasted

The kraft process has complete chemical recovery—i.e. the chemicals used are not wasted.

In the sulphite process it goes down the drain after use. For each type of paper required, from relatively rough newsprint and wrapping paper to high grade writing paper, different processes are used.

Each puts a vast demand on a multitude of different chemicals.

What of the future? Most experts in both fields are convinced the rate of supply—per ton of paper—of chemicals will remain pretty well constant.

New processes tend to replace old. Where wastage is cut, often the value of the new chemicals increase, retaining a constant balance.

For that reason new advances in chemical processes do not promise, most experts believe, an expanding sale of chemicals, except in relation to expanded pulp and paper production.

But new moves may well swing the emphasis of Canadian chemical production strongly from time to time.

All chemical companies are busy developing new techniques to help the pulp and paper makers, and are conscious the prizes are big for the firm that hits on something new that improves the paper making processes.

One of the most recent examples of this is the use of anhydrous ammonia to replace limestone in the sulphite process.

This is now being carefully studied by a number of pulp manufacturers, and some Canadian mills have already made the change to ammonia.

Among the more important advantages of the new process are: Higher yields of pulp from the wood; higher output per digester; improved uniformity resulting in a higher-test paper.

More economical operation due to ease of handling, process control, an absence of scaling; the ability to use jackpine and hardwoods which cannot be satisfactorily "cooked" with calcium-base liquors.

Large Market

There are more than 40 sulphite mills in Eastern Canada presenting a large potential market for ammonia and it is forecast that, by 1965, more than a third of the mills will have been converted to ammonia.

This is expected to make the pulp industry the largest industrial outlet for anhydrous ammonia in Eastern Canada.

Present users of ammonia are makers of explosives; fertilizers; nylon intermediates; synthetic aluminum; catalysts used to make high octane gasoline etc.

One of the most important new outlets for ammonia is in the metallurgical industry where a new ammonia leaching process has recently been introduced and is in use in the **Sherritt Gordon** Nickel Refinery at Fort Saskatchewan, Alberta.

A new ammonia plant is at the present time under construction at Millhaven, Ont. by **Canadian Industries Ltd.** The plant will have a production capacity of 200 tons of ammonia per day.

Another chemical that promises to play an important part in the pulp and paper industry is hydrogen peroxide.

It can be used interchangeably with sodium peroxide for the bleaching of groundwood pulp, and it has been found under test to produce 10 to 14 points of brightness without loss of yield or deterioration of the physical properties of the pulp.

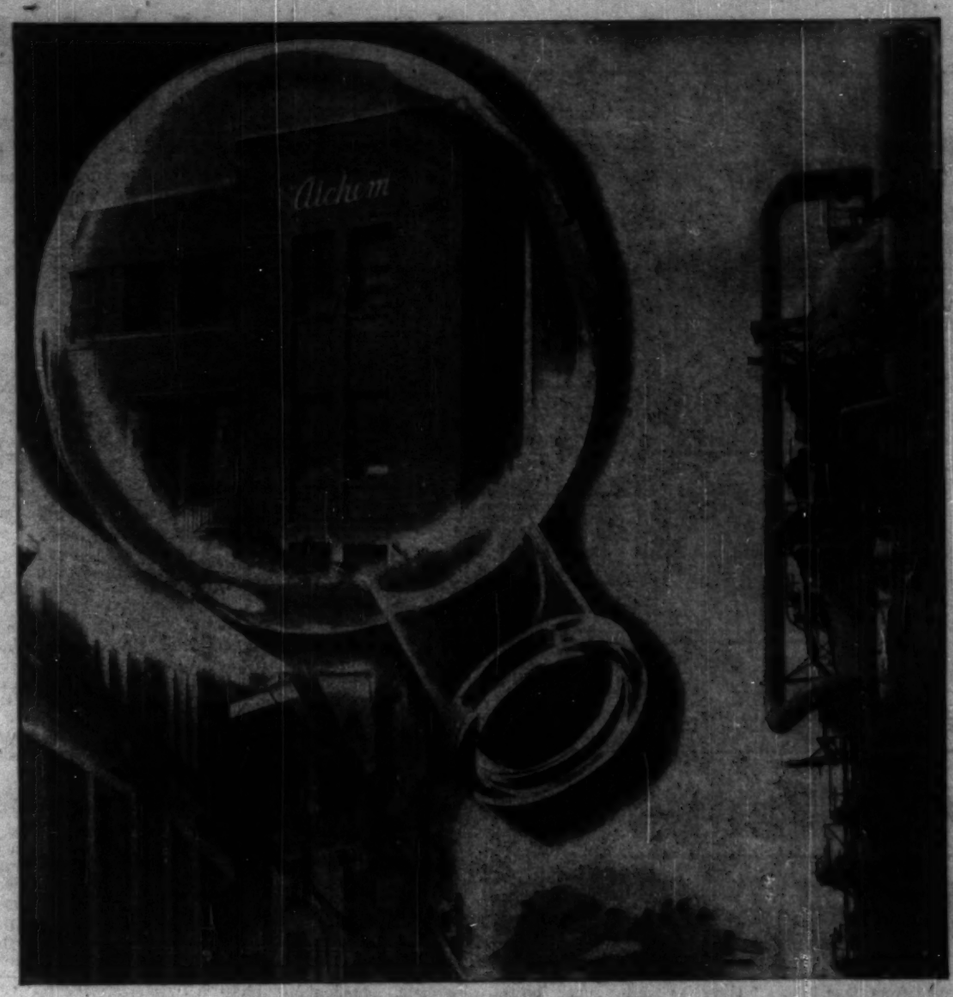
Experiments have shown peroxide bleached groundwood pulp, besides certain savings in cost, gives many desirable characteristics per sheet of paper.

Within limits, longer fibre furnish can be replaced without reduction in the strength of the sheet, since mechanical pulp tends to give improved formation.

A newer use for hydrogen peroxide in the industry is in the bleaching of chemical and semi-chemical pulp in single stage and multi stage processes.

Here, reports show, it has been found highly effective in producing a stable brightness without adversely affecting either the pulp strength or the yield.

THIS IS THE new $25 million Carbide Chemicals Co. plant at Montreal East. Montreal East has developed into Canada's No. 2 Chemical Valley, preceded by Sarnia. Edmonton is the third major chemicals centre.



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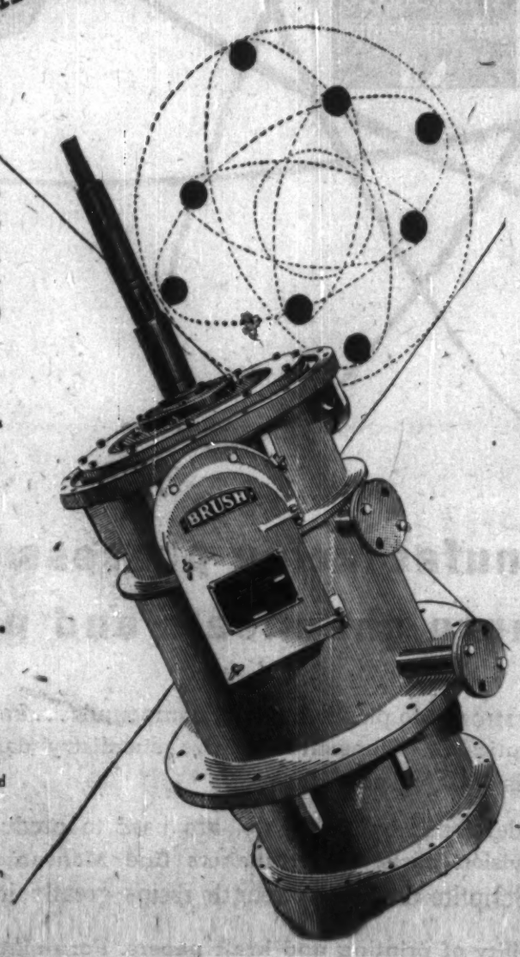
9-13

The U.K. Atomic Energy Authority

Selects BRUSH MOTORS for continual operation (one year without shutdown)



A large number of electric motors for driving centrifugal compressors has recently been built by Brush for the U.K. Atomic Energy Authority Industrial Group.

These motors have to comply with very stringent specifications — amounting to the highest standard of design and manufacture obtainable today.

One specific requirement is that the motors must be able to operate continuously—without shutdown, for ONE YEAR.

Each motor is rated for continuous duty at 2,965 r.p.m. operating on a 3 phase, 50 cycles supply, 415 volts. The aggregated horse-power runs into tens of thousands.

Vacuum tight joints were also specified to permit operation when charged internally with nitrogen, at a low absolute pressure, and with an ambient air temperature similar to that of a greenhouse.

Deliveries were maintained strictly in accordance with scheduled requirements throughout the contract.

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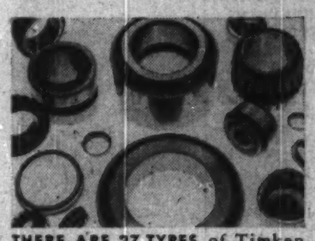

THERE ARE 27 TYPES of Timken tapered roller bearings. This wide selection means you get the bearing design exactly suited to your job. Whatever your bearing application problem, we can help solve it.

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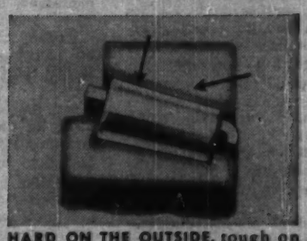

HARD ON THE OUTSIDE, tough on the inside. To take shock loads, give longer life, Timken bearing rollers and races are case-carburized to have a hard, wear-resistant surface over a tough, shock-resistant core.

MICRO-INCH FINISH is standard for Timken bearings. This profilograph checks contours and smoothness of circular surfaces to a millionth of an inch, helps us make Timken bearings truer, quieter, longer-wearing.

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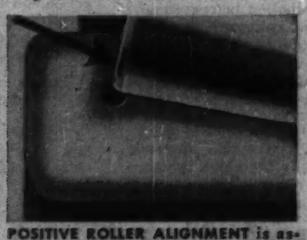

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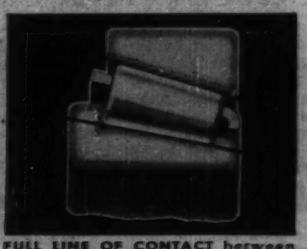

FULL LINE OF CONTACT between Timken bearings' rollers and races gives them *extra* load-carrying capacity. To get *all* these advantages, specify "Timken". The Timken Roller Bearing Company, Canton 6, Ohio, U.S.A. CANADIAN PLANT: St. Thomas, Ontario. Cable address: "TIMROSCO".

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Design No. 16,730—B B D O Cl 6-1057—Financial Post (Canada), June 22, 1957

Research for Industry

NRC Chemists Cut Your Costs?

By M. W. THISTLE
Chief, Public Relations Branch, National Research Council of Canada.

The National Research Council is an advisory council of 21 members. Most of these men are eminent scientists from all across Canada; others represent labor and industry.

They are responsible to a committee of seven cabinet ministers.

The Members of Council, who serve without salary, select the NRC staff, award scholarships and grants in aid of research, and are responsible for the general direction of the laboratory work.

The same words exactly—"National Research Council"—are often used to describe the Council's laboratories.

These laboratories are organized in nine divisions and two regional institutions. Two of these divisions deal with chemistry, and some chemical work is also done in other divisions of the Council.

A TECHNICIAN handles deadly radioactive materials quite safely in this "dry box." National Research Council researchers use the box to work with alpha- and beta-emitting isotopes. The box is airtight and maintained at a slightly negative air pressure so that any leak will be to the inside. Fumes are exhausted by a three-in. flexible hose.

Pure Chemistry

The Division of Pure Chemistry is organized around a nucleus of outstanding Canadian chemists, who direct about twice their own number of young postdoctorate fellows from all over the world. The work, of course, is long-range and fundamental.

The products of pure curiosity seem to be very far removed from ordinary life.

Nevertheless this Division's top experts are frequently invited to speak to groups of applied chemists and other scientists employed in Canadian industry. They also lecture in universities.

There are 13 sections in this Division: organic chemistry—mostly on the structure of alkaloids; organic spectrochemistry; organic synthesis; chemical kinetics and photochemistry; mass spectrometry; molecular spectroscopy; surface chemistry; thermochemistry; activated carbon, inorganic and general chemistry; intermolecular forces and physical properties; fibre research; chemistry of fats and oils; and general physical chemistry.

Applied Chemistry

The Division of Applied Chemistry is concerned with the best uses of Canadian resources and with chemical problems of wide general interest.

Corrosion: Corrosion costs Canada more than $3 million a year. The oxidation of iron and its alloys is an extremely complex problem.

Studies are being made of the mechanism of corrosion in aqueous solutions and of the oxidation of metals at high temperatures.

Catalysis: While the corrosion group is busy trying to prevent oxidation, several other groups are doing their best to enhance the oxidation of certain chemicals such as ethylene.

The product is a very active chemical — ethylene oxide — and the starting point of many other useful materials, such as antifreeze. A calcium silver catalyst shows considerable promise.

Rain Repellents: Work on rain repellents for aircraft w screens has been brought to onclusion with the development of a satisfactory one-coat material suitable for most applications.

Rubber: Carbon black is commonly used to reinforce rubber. Lignin has been successfully substituted for carbon black in preparing a tire tread stock.

Work on thermoplastics and rubber adhesives for bonding rubber to metal has continued.

Textiles: One of the functions of the textile laboratory is to advise the Canadian Research Institute of Launderers and Cleaners, with whom the Council has a formal agreement.

The aim is to maintain a high standard in operating Canadian cleaning establishments.

Assistance is also given to government departments on such problems as moth-proofing, rot-proofing, and moisture-proofing of textiles. Synthetic detergents are also being examined.

Other Industrial Problems: Possible application of the spouted bed technique to industrial drying problems has been investigated.

A pilot model of a sedimentation device has been constructed and successfully operated.

In addition, this Division does work on colloids, analytical chemistry, high polymer chemistry, metallurgical chemistry, and physical organic chemistry.

Applied Biology

Much of the applied work in this Division is undertaken in co-operation with industry or for government agencies. But fundamental work is also done on the metabolism and chemical composition of living organisms.

Hemicellulose in Pulp: Milder pulping agents have increased pulp yields by producing semichemical pulps.

These have a higher proportion of the hemicellulose material of the wood.

The structure, properties, and behavior of the hemicelluloses of common pulp woods are being examined, so that the pulp and paper industry can more readily solve their manufacturing problems when using the new semichemical pulps.

So far the hemicelluloses of jack-pine, white spruce, and beech wood have been studied.

Toxic algae: Because blue-green algae have sometimes been implicated in deaths of cattle and other animals, different species and strains of algae have been examined.

Two out of nine strains of a single species proved highly toxic. Twelve other species or strains were non-toxic.

The toxin appears to be produced inside the algal cells and must be released before it is fully effective.

Environmental factors greatly affect both the production and release of the toxic material.

Other work concerns the liquid immersion freezing of poultry; the effects of freezing on the enzymes in milk; the lipoproteins of hen egg yolk; and the effects of different bacteria on casein, the principal protein in milk.

Atlantic Regional Laboratory

The Atlantic Regional Laboratory studies the preservation and use of food products and some of the problems encountered by secondary industries in the area, such as storage of several varieties of potatoes, drying of rockweed, deposition of pitch from sulphite pulp mills in the Atlantic provinces, and the manufacture of iron and steel. The explanation of deposition of pitch in pulp mills still remains doubtful and requires further study.

Manufacture of Steel: This is a problem in the Atlantic region because they are smelting a high-phosphate ore from Newfoundland by means of a high-sulphur coal from Cape Breton.

Technical problems are many: they are being attacked with studies on: oxidation of carbon in steel; factors affecting the equilibria of various constituents, especially phosphorus, between molten iron and slag; and the nature and behavior of the gases encountered in making steel.

The resulting basic slag is high in both phosphorus and calcium (calcium is added to get rid of the phosphorus) and should therefore have a potential use as fertilizer.

The main technical problem here is a cheap method of breaking up the slag.

Isinglass: Isinglass has been extracted from cod swim bladders and prepared in a highly purified state.

It differs only slightly from similar material from mammalian connective tissues.

Peat: A systematic survey of the chemical composition of peat from the larger bogs in the Atlantic provinces is almost finished.

This will permit the construction of profiles for various bogs and furnish a sound basis for estimating the resources available.

Slime: The nature of slime in the "white" water of pulp mills has been established: it is caused by the growth of numerous fungi associated with symbiotic bacteria.

Commercial inhibitors were highly effective.

Prairie Regional Laboratory

The applied work is designed to promote and expand the use of agricultural products of the Prairie region.

Fundamental work includes studies on the properties and reactions of starches, sugars, proteins, fats and oils, and other plant constituents; on the physiology and biochemistry of living plants and of micro-organisms; and on the development of fermentations using a wide variety of nutrients.

Strawboard: Work on producing building boards from straw is now largely of an advisory nature.

A local firm is currently building a $3 million plant in Saskatoon to produce both fibreboard and hard board. This building will be in operation in the summer of 1957.

Elevator Dusts: A sedimentation method has been devised for classifying elevator dusts, which gives more accurate results than the screening methods used previously.

Fungi: A new antifungal antibiotic has been isolated, and is effective in large dilution against growth of yeasts, smuts, and rust spores.

Progress is being made in producing commercially important ergot alkaloids by cultivating ergot fungus in synthetic media.

Protein feed supplements: An attempt is being made to produce protein feed supplements by growing micro-organisms on waste sulphite liquor or molasses media.

Gluten: Recent work has shown that vital gluten may be prepared from some low-grade wheat flours.

In this Division work for industry is increasing year by year.

In addition to the industries that one might expect such as the aircraft, shipbuilding, and light and heavy engineering industries, the Division also co-operates with the pulp and paper and chemical industries.

During the year the Division organized a seminar on flow in suspensions, the first in a series of seminars in particular fields to be participated in by specialists from industry, from the universities, and from research establishments.

A large part of the work is related to defence: these laboratories co-operate with all three armed services and with the related industries in development, production, and assessment of new equipment; in standardization; and in solving service problems.

Links with Industry

The National Research Council is linked to Canadian industry in several ways—through the work done in its laboratories, through about 100 visits per day back and forth between the laboratories and the industries, through the system of associate committees, through its patents organization, and through its Technical Information Services.

The Council also functions as a source of supply of trained scientists and technicians for industry.

After some years' training and experience in the laboratories, the staff are much in demand by industrial firms.

Associate Committees

Since 1917, the Council has taken the initiative in bringing together those best equipped to deal with special problems of national scope in the scientific or technical fields.

These associate committees combine the wide practical experience of industrialists with the special knowledge of scientists—hundreds of experts from all across Canada—who serve without salary.

Membership is drawn from federal, provincial, university, and industrial organizations.

An associate committee may receive a grant from the Council or assistance from other sources, to promote research in its field of interest.

The Council looks after the administrative details; the committee outlines the researches, recommends the laboratory in Canada in which they should be conducted, and assesses the merits of the results.

Canadian Patents

Canadian Patents and Development Ltd. was set up to handle inventions of the National Research Council, but it now handles the inventions of many other public organizations.

This body does not sell patents, but it rents them to industry under a license system. The inventors get a share of the profit, but most of it is ploughed back into further research and development.

Technical Information

The Council's Technical Information Service was set up to help Canadian industry and especially the smaller industries.

The Service answers about 8,000 enquiries a year. The chemical industries account for slightly more than 25% of all these enquiries.

If no answer already exists in the scientific literature, research may be necessary.

If the problem is obviously of national interest it may be undertaken entirely at Council expense.

If the project is of less than national scope, the expense may be shared by the company and the Council.

If facilities for an investigation are not available elsewhere in Canada, the Council may undertake a specific piece of industrial research on a fee basis, in which event the results become the property of the company.

However, industry is encouraged whenever possible to do its own research and if they have no research facilities they are encouraged to create them as soon as possible.

Awards

The Council is organized in such a way that administrative aspects are separated out under the Division of Administration and Awards.

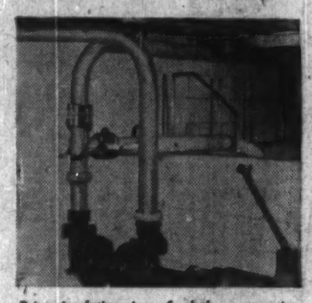
These people aim to set the scientist as free as possible to conduct his research and to be as helpful to him as they know how. Part of the work has to do with awards.

The Council has always awarded scholarships to brilliant students in many fields of science and also gives grants in aid of research to Canadian universities.

The current program is about $4 million a year which makes the Council the largest scientific foundation in Canada.

Polythene pipe being positioned in Ontario Hydro's St. Lawrence Powerhouse.

Non-corroding polythene pipe, up to 4" diameter, is used in this research lab for main and drop waste pipe.



Brine circulating pipes of polythene are easier to clean, have eliminated corrosion impurities in this bacon-curing plant.

St. Lawrence powerhouse has its pulse taken!

More than five miles of polythene pipe are being used as piezometer lines in the St. Lawrence power project. These water-lines are embedded like veins through the concrete foundations during construction. They carry essential data to the power-house, recording by remote control the quantities of water flowing through the turbines. Polythene pipe was chosen for this application after exacting physical tests.

Chemical, pulp and paper, mining and manufacturing concerns are among the many industries using polythene pipe. It is virtually immune from attack by most highly corrosive chemicals and does not rust, rot or scale. It is light, flexible, easy to install and comes in continuous lengths up to 400 ft.

Canadian Industries Limited
Plastics Division, P.O. Box 10, Montreal, P.Q.
supplies polythene resin to the pipe manufacturers

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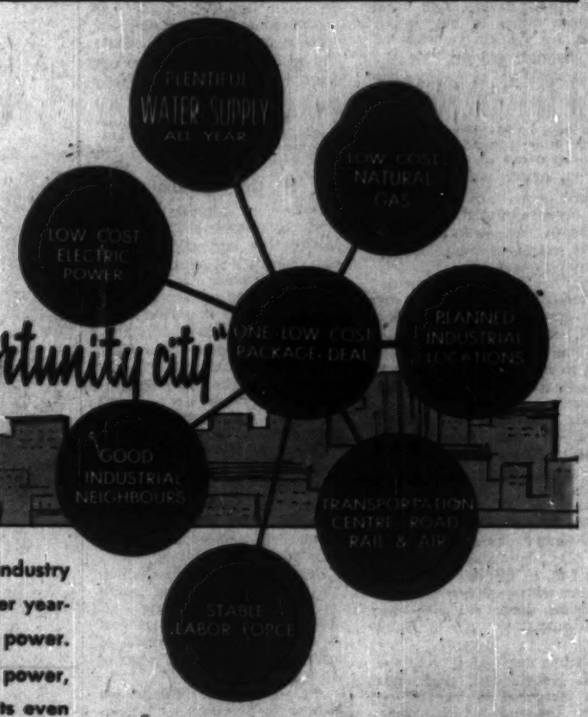

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Chemicals for Metallurgy

Mining Becoming More a 'Chemical Industry'

There's a big field of chemical growth opening up in Canadian mining.

Production of the new "rare" metals, new processing techniques for the older, established minerals are bringing the chemical and the mining industries still closer together.

Uranium — particularly the large scale operations in the Blind River field — is sparking the latest round of chemical expansion to keep pace with mines demand.

This demand springs in large part from the leaching process used in recovery of uranium oxide from its ore.

The chemical-using processes are also employed in base metals recovery in Canada on a big scale.

And in the future, chemical industry officials see another big round of growth in the use of chemicals in processing the big - tonnage, well - established metals like copper and nickel, with anhydrous ammonia and various acids leading the way.

Backbone of chemical growth is the demand created by natural resource development.

Mining, which has been expanding at a 10% a year clip in physical volume production over the last 10 years, is well ahead of the gross national product rate.

Now a $2 billion a year industry, mining is looked to as a pace-setter in chemicals demand.

Beating Metals

Chemicals consumed by Canadian iron ore, copper, nickel, uranium and other metal mines are booming ahead at a faster rate even than the metals output.

Here's what chemicals people see in this big mining market:

- Still greater use of chemicals as new leaching and refining methods are introduced into mining plants and mills.
- Several new chemical by-products produced in recovery of oxides, such as uranium oxide.
- Possible growth over-all by mines for chemical products from around $40 million now to $150 million by 1975.
- Product leaders in this growth: probably sulphuric acid, ammonia, muriatic acid and flocculating agents, among others.

Chemical processing methods are supplanting older, pyrometallurgical processes in mining.

The chemical technique offers greater scope for automation.

It gives better product yields, increases metal values obtained and, in many cases, provides byproducts such as elemental sulphur and fertilizers.

It also improves the chances of on-site processing at mines where large, complex ore bodies are involved — at least, when natural gas is available.

New Methods

The trend away from older methods is evident in the number of techniques now under study for use of coal, rather than coke, for reduction of metal-bearing ores.

At Blind River, eight new uranium mines or developing mines are sparking a wave of fast chemical growth.

It shapes up as a big, new market for possibly as much as 4,000 tons of reagents per day.

The huge field — biggest uranium camp in the world — has an assured uranium production of $1.1 billion to 1963 and, because of tremendous reserves of ore, looks to be a major source of world supply for many years ahead.

Here are some of the chemical industry results springing from development of this one field:

—Plan for a plant near the field to make sodium chlorate for use in chemical recovery of uranium oxide.

—An increase in output scheduled this summer at **Noranda Mines'** big sulphuric acid plant being built near Blind River. Officials see a market in Blind River of around 1,500 tons of acid a day.

—Another new sulphuric acid plant by **Canadian Industries Ltd.** at Copper Cliff will convert waste sulphur gas into sulphuric acid. All 300 tons daily output will go to Blind River.

—Nitric acid capacity at the C-I-L Nobel, Ont. plant has been increased to meet Blind River demand which could run to 40 tons daily.

—Two limestone quarries near Ingersoll, Ont. are boosting capacity, solely on the basis of Blind River demand.

Plant Possibility

Other interests are looking into the possibility of new plant or expansion of existing plant to fill the booming Blind River chemical requirements.

For example, such items as ion exchange resins, magnesium oxide and sodium hydroxide are also used in the leaching process used in uranium mills.

Uranium is showing dramatically how a new segment of the mining industry can quickly develop to the point where it creates a tremendous call for chemical reagents and other products used in the recovery processes.

Biggest demand is for sulphuric acid which all Blind River operators are using and will use in their mills—about 1,500 tons of it every day once all mines are producing early next year.

Literally, facilities for chemical output to meet this new uranium demand have almost been left behind, so quick is the growth.

Original plans of chemical companies that looked adequate a short time ago are now outdated as demand spirals.

Canada has two other major uranium fields, outside of Blind River. While demand in these two camps — Bancroft and Beaverlodge in northern Saskatchewan — will be overshadowed by Blind River, they nevertheless will require substantial amounts of processing chemicals.

Bancroft, for example, has two new mills now operating and it is expected that another two will begin producing sometime before March next year.

Production rate daily of these mills is to be about 4,100 tons compared with Blind River's 34,300 tons or better.

Beaverlodge, where the mill of **Eldorado Mining & Refining** has been in production for some time, will also create big new demand for chemicals.

Eldorado and producing **Gunnar Mines** are both expanding their production rate and a new custom mill in the camp is now in initial operations.

Huge Output

Altogether in the three camps and at a handful of other mines outside these areas, Canada will have by next year a daily milling rate of nearly 45,000 tons of uranium ore and yearly output worth over $350 million.

But uranium — despite its dramatic growth — isn't monopolizing mining demand for chemicals. Growth is evident in other areas as new processing ways take over.

Big development in recent times is the new use of the ammonia leach process.

It's now being used by **International Nickel** to recover a nickel-chemical product and high-grade iron ore in pellets. **Falconbridge Nickel** also operates a leach plant at Sudbury.

The ammonia leach process developed for **Sherritt-Gordon Mines** is one of many chemical success stories in Canadian mining.

Other projects still in the planning stage involve the leach process, including the proposed nickel-copper smelter project of **Eastern Mining & Smelting** at Chicoutimi, Que.

New type of equipment is now in use at the Sherritt-Gordon Fort Saskatchewan plant in Alberta.

Specially-designed for the plant, it produces hydrogen sulphide gas used in recovery of cobalt and nickel.

It's now used in the plant to recover over 600 lb. of cobalt and nickel metal from process solutions at the refinery where over 30 tons of pure nickel metal and 250 tons of ammonium sulphate fertilizer are produced daily.

1½ Tons Gas Daily

Hydrogen sulphide is usually considered a laboratory reagent for separation of certain metals in solutions. The new equipment can produce over 1½ tons of gas daily.

A previously-imported mining industry chemical, xanthate, is now produced in Canada. The reagent, used in the flotation process of ore concentration, is made at a **North American Cyanamid** plant near Niagara Falls.

Cyanamid has been a leader in developing heavy media, or sink-float, process for ore separation. Such minerals as iron ore, lead, zinc, fluorspar, tin and manganese have been handled by this method.

Even those new mines which have not planned using leaching processes at the start — it involves a heavy capital cost — tend to think in terms of switching over some time in the future.

An example: **Brunswick Mining & Smelting's** developing lead-zinc mine in New Brunswick which is to use a flotation recovery method initially, but the plant will be built so that a change to roast-leaching can be made easily.

Mining men readily admit that leaching usually offers greater recoveries of values in the ore.

It's only a question of whether to go ahead with the greater initial cost, a decision that usually hinges on the marketing outlook for the metals at the moment.

The new minerals now coming into the spotlight mean another field for chemical growth.

Expansion Plans

Recently, Canada's only major lithium producer, Quebec Lithium Corp., unveiled expansion plans for its plant in Quebec.

And out west, activity is still humming in the Cat Lake-Winnipeg River area of Manitoba where one developed property has been taken under option by a U. S. metals firm.

Not only are chemicals used in extraction of lithium from its ores, but lithium itself then becomes an important item in the chemical industry.

Canada has large deposits of another new metal, columbium, in the Oka area of Quebec, near North Bay and west of Sudbury in Ontario, and in southern B. C.

The complex metallurgy involved in extraction and recovery of this mineral could open up a whole new field for chemicals. Chlorine figures in much of the research now being done on columbium recovery.

Forecasts are that chlorine will come more into demand as new "problem" minerals present complicated metallurgical situations.

Research in ore processing is a major function of big mining-metallurgical giants like International Nickel and **Consolidated Mining & Smelting**, as well as of the federal Department of Mines and Technical Surveys, mine laboratories of the provinces, at research facilities of colleges.

The Battelle Memorial Institute of the U. S. is also active on research jobs for Canadian mining companies, as it has for many years.

The big Canadian mining companies look to chemistry to help them maintain and improve their positions.

Smaller companies with developing prospects also turn to the laboratory — long before the production stage is reached — in order to determine how chemicals can best win minerals from their ores.

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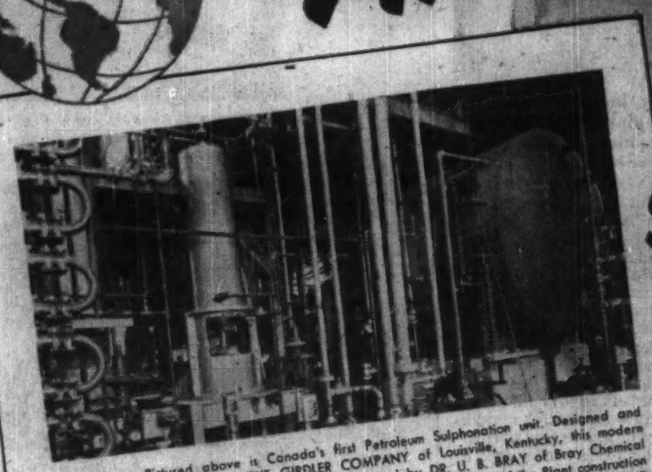
... marking Surpass Petrochemicals second important contribution toward making Canadian Industry less dependent upon imports.



1 Pictured above is Canada's first Petroleum Sulphonation unit. Designed and engineered by THE GIRDLER COMPANY of Louisville, Kentucky, this modern unit is based on the process developed by DR. U. B. BRAY of Bray Chemical Company, California. The General Contractor in charge of the Plant construction and the installation of the equipment was the TAYLOR ENGINEERING AND CONSTRUCTION COMPANY LIMITED of Toronto.

2 The continuous process grease plant of SURPASS PETROCHEMICALS LIMITED was completed in the latter part of 1956. Another first in Canada, this unit was also designed and engineered by THE GIRDLER COMPANY and was erected and installed by THE TAYLOR ENGINEERING AND CONSTRUCTION COMPANY LIMITED. The use of Girdler's Votator heat transfer apparatus has made it possible to produce better grease at lower cost and makes this the most modern and compact grease manufacturing operation in Canada.

MANUFACTURING A WIDE RANGE OF PETROLEUM SPECIALTIES FOR INDUSTRY

In the erection of this new plant, the management of Surpass Petrochemicals Limited has tried to combine the newest advancements in process design, and the very latest in equipment and manufacturing methods, so as to make available to Canadian Industry, Petroleum Specialties of the highest quality.

In the research laboratories of Surpass, their Chemical Engineers and highly skilled staff of technicians are continually developing new products to meet the increasing requirements of Canada's growing industrial markets.

SURPASS IS NOW MANUFACTURING IN CANADA, SODIUM SULPHONATES WHICH WILL BE MADE AVAILABLE TO INDUSTRY BOTH HERE AND ELSEWHERE IN THE COMMONWEALTH

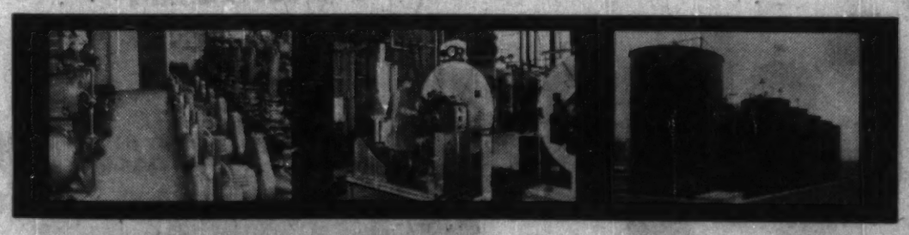
These versatile materials, as the name implies are produced by the Sulphonation of various petroleum fractions and are marketed as salts in oil solution. The major fields of application include motor oil additives, soluble type metal working lubricants, corrosion preventives, agricultural sprays, dry cleaning fluids, flotation reagents and in the textile and leather industries.
Other sulphonates such as:

CALCIUM BARIUM AMMONIUM

are available in experimental quantities and can be made commercially if and when the need arises.

MULTI PURPOSE LITHIUM BASE GREASES ARE STEADILY REPLACING OTHER SOAP BASE GREASES AS THE STANDARD PRODUCT OF MANY OF THE NATION'S MAJOR OIL COMPANIES

Their demonstrated superior performance over wide ranges of operating conditions have made them the choice of motorists and plant engineers everywhere. Lithium base greases are resistant to water and will protect lubricated parts from corrosion in the presence of moisture. They have melting points well over 300°F. and, with the proper mineral oil base, can be formulated for service down to −65°F. and lower with synthetic oil bases. Other special properties such as extreme pressure performance can be built in, when required.



OTHER SURPASS PRODUCTS

SURPALOX 1689 is a non-ionic emulsifier capable of forming water in oil (w/o) emulsions. Will replace blown rape seed oil and other emulsifiers in the preparation of marine engine lubricants, rolling oils and air tool lubricants.

SURPALOX 1846 is a corrosion inhibitor for jet fuels. It has been approved under U.S.A. Specification Mil-I-25017. Minimum effect amount 4.0 lbs. per 1,000 barrels.

SURPAKOTES are rust preventives of the polar type used for the temporary and semi-permanent protection of metals against atmospheric corrosion, the majority of which have been formulated to meet Canadian Governmental Specifications.

SURPALOX 60 SERIES are a new series of corrosion inhibitors which are proving effective against most types of corrosion encountered in the oil producing, oil refining and natural gas producing industries.

Another important phase of our operations is the manufacture of a wide variety of special petroleum products for industry. These include additives and bases for concrete form release compounds, penetrating oils, fire-safe hydraulic fluids, marine and steam cylinder engine oils, motor fuels and corrosion inhibitors for many purposes.

surpass Petrochemicals Limited

FACTORY AND LAB. 36 UPTON RD., SCARBOROUGH, ONT. EXECUTIVE OFFICES 80 RICHMOND ST. W. TORONTO

1956 ANNUAL REPORT NOW AVAILABLE

The Annual Report of Surpass Petrochemicals for the year ended December 31st, 1956 is now available in limited quantities. Should you be interested in knowing more about the company and its products write Surpass Petrochemicals Limited, Room 1402, 80 Richmond Street West, Toronto and a copy will be forwarded to you by return mail.

THE GIRDLER COMPANY
A Division of National Cylinder Gas Company

The Girdler Company's Votator Division specializes in the design and engineering of complete processing plants and the manufacture of continuous processing apparatus for liquid or viscous materials.

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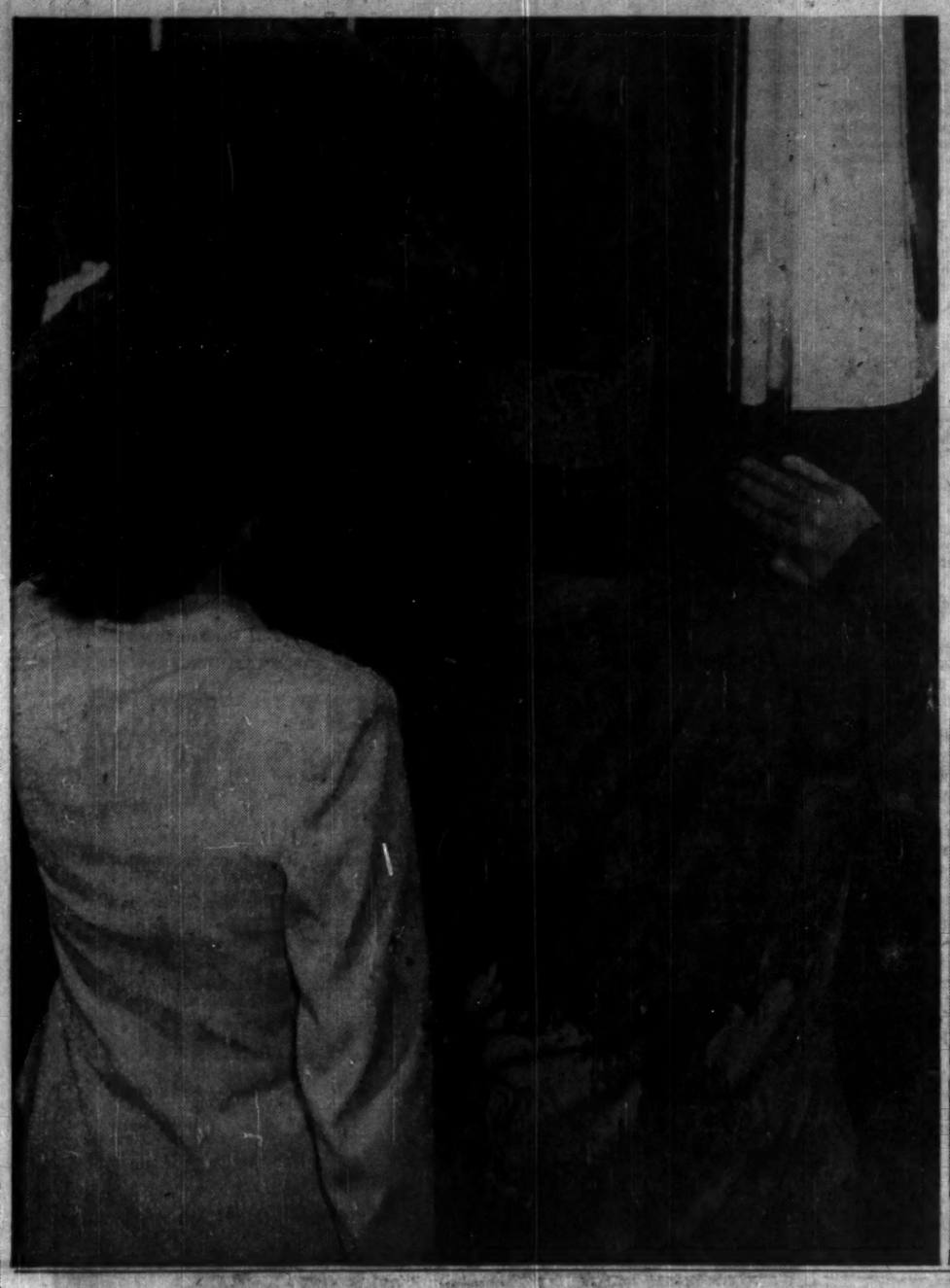


Chemicals in Modern Living

Chemicals today enter into every aspect of your daily life.

From your morning shave (artificial brush bristles) until your evening meal (artificially colored and flavored foods), chemicals are part of everything you touch.

Chemists, by continually building new materials, are creating limitless possibilities for improved living.

Today, for example, a specially treated artificial-fabric suit (at left) sheds a cloudburst while a natural-fibre suit becomes soaked.

Sheet plastic puts a backyard swimming pool (below) within virtually any Canadian budget.

Tough, flexible, noncorrosive, unbreakable, polyethylene (top right) goes into containers ranging from perfume bottles to 20-gal. garbage pails, from diaper basins to industrial tanks.

Light and strong, vinyl luggage looks modern and streamlined and can take rough punishment too.

If you're thinking plastics

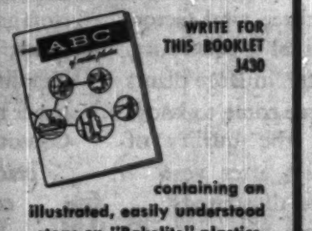
...then start with BAKELITE

Point your finger almost anywhere today—in your home—in industry—and you'll find plastics being used to an ever-increasing degree.

Plastics are here to stay because their properties give industry easily fabricated and applied materials with which to make products better, at lower cost.

You'll see end-use evidence of plastics in automobiles, kitchen wares, consumer and industrial packaging, toys, furniture, boats, electrical components, paints, stoves, refrigerators, radios, T.V. sets, foundry molds, etc. These are but a few examples, and the future will reveal many more surprising uses for these "miracle materials".

We suggest you find out how plastics could be put to work for you. Contact Bakelite Company—the pioneer in quality plastic raw materials.



WRITE FOR THIS BOOKLET J430

containing an illustrated, easily understood story on "Bakelite" plastics.

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Pharmaceuticals

See 10% '57 Sales Hike

At the semi-annual meeting of the Canadian Pharmaceutical Manufacturers' Association at Ste. Adele, Que., early this June officials of the industry naturally were talking business: present, future and past.

General thinking: total sales volume for 1957 would show a 10% increase from an estimated $100 million last year by member firms.

The upward trend hasn't been uniform for all. Some manufacturers weren't finding inventories moving as well.

Buyer resistance has developed in some of the more expensive counter items.

There is some speculation that one reason for areas of market softness result from newer drugs cutting into the amount of time people are ill and hence the number of pills they need to purchase.

The general feeling is optimism, big challenges ahead and growth potential even bigger.

And a realization that companies have helped save lives, shorten average stay in hospital, relieved pain and quietened mental stress with the many new "wonder drugs."

David L. Menzies, president of the association, told the meeting that it is highly probable the average man of the future will live to be at least 100.

In recent years, the almost phenomenal strides of medical science have helped prolong life of many by a marked degree. If anything, progress in the field of geriatrics is on the increase.

Cut Death Rate

Medical advances have cut North America's mortality rate by some 75% during the past 40 years.

In 1915, one out of every 10 live-born babies could be expected to die.

By 1956 the ratio has dropped to one out of 40, primarily because of modern medical and maternity methods.

At the same time, costs of maternity care have actually declined even in the face of more effective treatment.

It is estimated maternity cost based on comparable dollars are about 18% lower than they were 25 years ago, Menzies said.

Behind this advance and abetting it are pharmaceutical houses in Canada which have become research and development firms with full staffs of physical and organic chemists, pharmacologists, bacteriologists.

Manufacturing houses are creating specific chemical agents.

Thousands of new chemicals and compounds are now prepared and screened by the scientific teams to unearth specific substances to deal with disease which produces them.

These houses often begin with chemicals and then determine what they are good for instead of starting with the disease.

Brought New Drugs

And this is the research which has brought about the many new "wonder drugs" of the past decade or so, the antibiotics, penicillin, tranquilizers, folic acid, cortisone and other hormones, antihistamines . . .

Only 10 years ago, 90% of the drugs in common use today were unknown.

The drugs existing then were mostly mixtures and extracts derived from natural vegetable, mineral and animal sources.

They were not refined to the point where one could identify the ingredients chemically.

With few exceptions, none was the result of synthetic chemical development in laboratories of pharmaceutical houses.

Yet, the vistas of the future are even wider. There are many challenges ahead, particularly in fields such as high blood pressure, heart disease, multiple dystrophy, multiple sclerosis, alcoholism, common cold, viral pneumonia.

But the millions of dollars the industry has poured into capital investment in the past decade will no doubt continue to pay off.

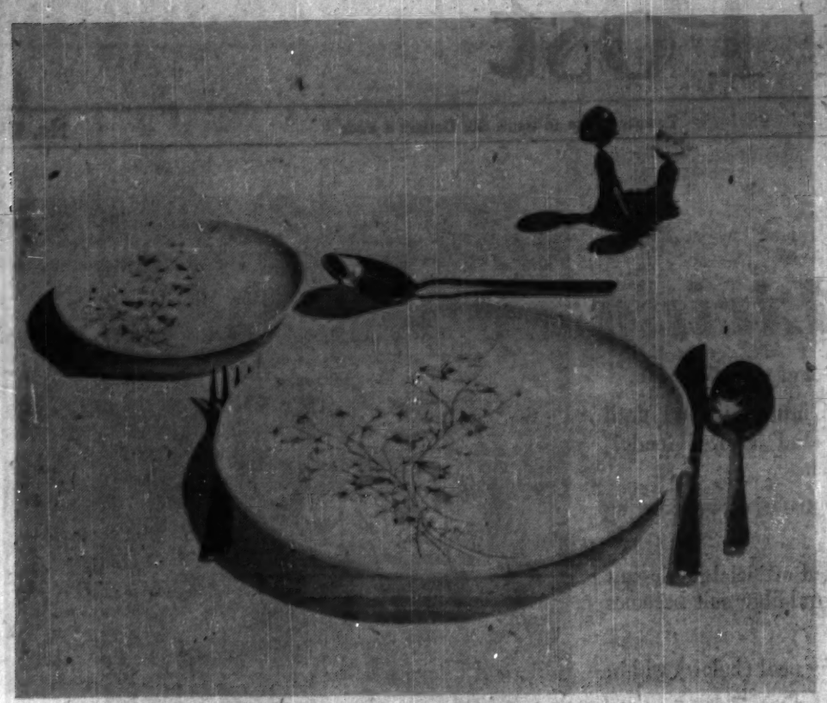
The association—which represents about 80% of Canadian industry—estimates total capital investment has increased from $22.3 million in 1946 to $60.3 million in 1956.

Outlay on new equipment alone amounted to some $10 million.

The heavy investment, long months of research have resulted in drugs which have become common in medical practice.

They are sulfonamides, hormones, antibiotics, Salk vaccine, anti-tubercular drugs, among others.

Meanwhile, the industry continues, the long, painstaking task from the research labs to mass production and distribution. And the relief of human suffering.



PLEASING COLOR PATTERNS have expanded the market for molded plastic dinnerware. The decoration is achieved by inserting an impregnated sheet of paper bearing the pattern into the mold. The special materials are marketed in Canada by North American Cyanamid Ltd.

Surpass Broadens Its Petrochemical Line

Although plastics, synthetic rubber, synthetic fibres and detergents are the "big guns" in the fast-stepping plastics industry, there's another group—not as well known—but which serves a broad and still expanding range of industry in this country.

Included in this second important group of chemicals obtained from petroleum oil fractions are: lubricating oil additives, surface active agents, surface coatings, special solid and semisolid lithium base lubricants, corrosion inhibitors, rust preventatives, petroleum sulphonates, poly-alkylated benzene sulphonates, non-ionic emulsifiers, di-functional esters, oxidates, extenders for natural waxes, replacements for certain vegetable oils.

There are still others in this important field just emerging from industrial and university research laboratories.

Up until the last couple of years many of these petroleum-based chemicals had to be imported—most of them from U. S.

But gradually more of these items are being supplied from new, specially-equipped chemical plants in this country.

One such plant established in the Toronto area in the last year—**Surpass Petrochemicals Ltd.**—is now producing many of this latter group of chemicals in commercial quantities.

Plastics Make Dolls Lifelike

Miss Revlon Doll, a real beauty from the silken tresses to the daintily shod feet, is revolutionizing the Canadian doll business.

The secret — she is made of sterner stuff than her sisters — semi-rigid vinyl to be exact.

The amazing new plastic material has worked wonders; built a new strength of character into Miss Revlon; a new peak in lifelike attractiveness.

Reliable Toy Co., Toronto, biggest Canadian toy manufacturer and specialist in the doll field for years, is the first Canadian firm to develop and use the semi-rigid vinyl material in this application.

Now the company is so sold on the future of the "new look" in dolls that it has switched operations over entirely to the new material, scrapping considerable plant equipment in doing so.

The big thing about the new body material is that it is the nearest thing yet to the consistency and flexibility of the real baby's body.

Molders can now impart startling, detailed realism — like fingernails, wrinkles, dimples.

It is flexible enough that children can move it and yet rigid enough that it retains its position and shape.

It can have several movable sections.

Old Dolls Gone

"The old latex and composition dolls are passé now," claims S. F. Samuels, Reliable Toy president.

"We can build the various degrees of rigidity into this new material and the body walls are firm enough and heavy enough to do away with any need for stuffing."

But the wonders of plastics in new toy applications are increasing rapidly.

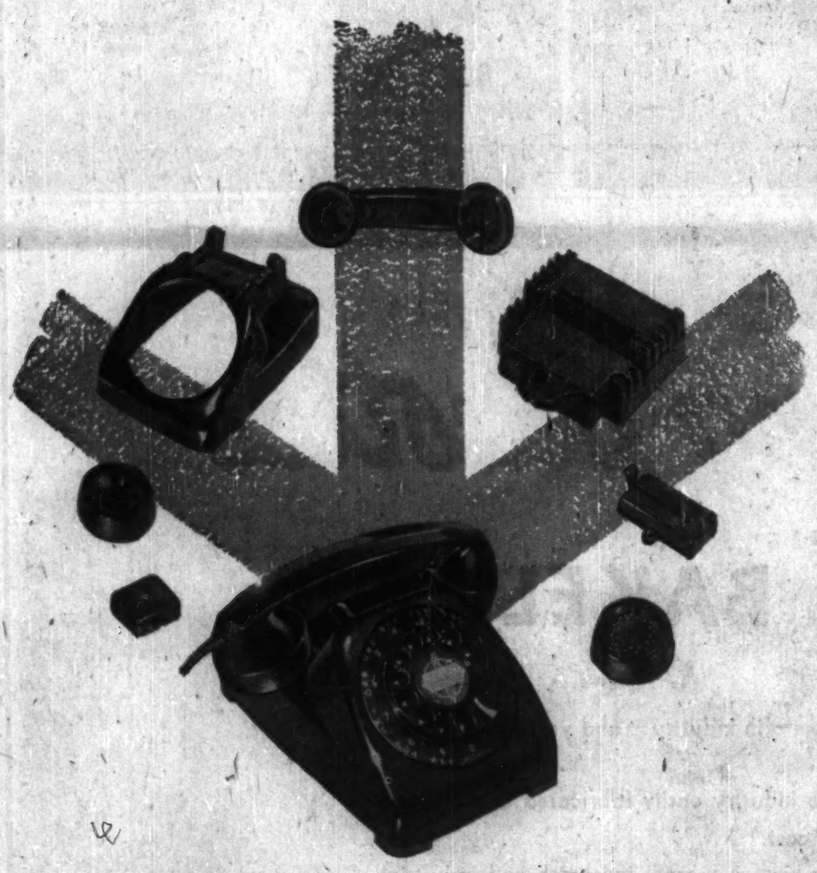
Remarkable new developments have taken place, for instance, in children's tea sets. The dishes and cutlery are closer than ever to normal adult size.

By plating styrene material knives, forks, spoons look amazingly like the real plated cutlery that's trotted out on special occasions at home.

This plating material worked into delicate patterns on styrene plates, saucers and cups provides a sumptuous quality to the set.

Interlocking building blocks of polyethylene that are lighter, often easier fitting than the longer-established rubber blocks is now a popular toy line.

New amazingly detailed, high lustre, unbreakable toy trains and ships in polyethylene are further widening the toy market for these plastics.



Intricate molding operation performed for Automatic Electric (Canada) Limited

The Automatic Electric Type 80 Telephone, above, the second model molded for this Company . . . is typical of the repeat-order confidence customers have in Canadian General Electric.

Time after time these customers return to Canadian General Electric Plastics advisory staff with problems involving plastics. Job after job they profit from the design ingenuity, wide material and process versatility, and the experience, progressive research and practical knowledge that has made C-G-E one of Canada's oldest, largest and busiest molders of plastics.

Plastics Advisory Service — No matter what your requirements this "specialist" Service will pay off for you, too. Whether the job calls for an entirely new material, product, or part or simply the need to improve the visual or functional design of an old product, C-G-E engineers range through every known raw material and filler, and every method of molding — injection, compression, extrusion, including automatic molding. One or all of these methods may be required to produce parts for a final product that is better made . . . at lower cost . . . with fewer rejects. *For complete information: contact Plastics Advisory Service, Canadian General Electric Co. Ltd., Cobourg, Ontario.*

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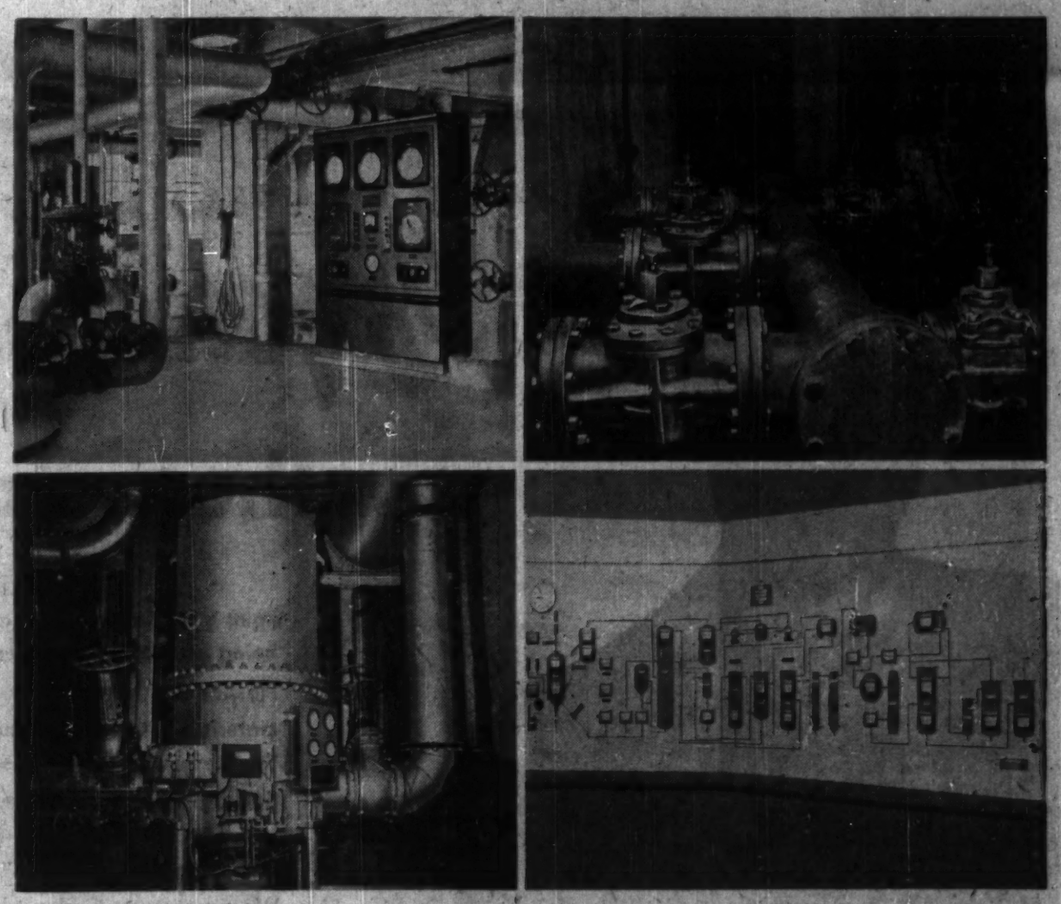

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Precise measurement...accurate control...dependable filtration...three vital factors in successful chemical processing. Throughout the industry, in large plants and small, engineers have come to know they can depend on the quality of Peacock equipment year after year. Typical installations are illustrated above: *Top left:* Foxboro Sulphate Digester Controls in a large western pulp mill; *Top right:* Nordstrom Ni-Resist Lubricated Plug Valves on black liquor storage tanks and lines in evaporator room; *lower left:* Cuno Flo-Klean Filter handling mill water supply in an eastern paper mill; *lower right;* Foxboro Model 50 Consotrol instruments on a fluid catalytic cracking, fractionation and gas recovery panel in a British Columbia refinery. In chemical processing as in so many industries, men who demand the best look to Peacock.

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Silicones

New Uses Push Volume

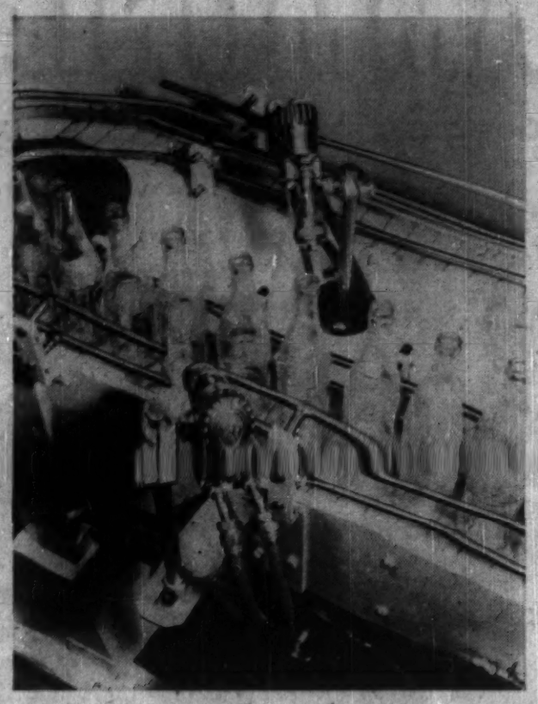
Exciting new applications in the big cosmetic and pharmaceutical industries are broadening the sales horizons of the silicone chemicals family.

The new marketing potentials all derive from the fact that the special silicones used are inert, non-oily, water-repellent and do not interfere with the ability of the skin to breathe.

Special alcohol-soluble silicone fluids have been developed for the cosmetic industry and are beginning to find wide use in many brands of hand creams, industrial barrier creams, sun tan lotions, before and after-shave lotions, hair sprays and lipstick.

These materials are also making good ointment bases with the additional feature of releasing the active medicament slowly and prolonging its action and effect.

The adoption of silicones in cosmetics is now becoming so broad that it seems likely they will become as much an accepted part of the industry as are the silicones in furniture and car polishes today.



SILICONE compound sprayed on these soft drink bottles provides a nonoily lubricating film that reduces abrasions and scratches, cuts breakage as much as 80%. It also improves the container's appearance.

Special Applications

Special silicones have been developed for application to leather, both at the tannery and by the end user.

The desired properties here are resistance to water penetration, perspiration and road salts. First fields of application have been in outdoor boots, golf shoes and work boots of various types. But their use is now expected to spread to children's shoes and all other types of footwear.

Here again the important property of the silicone treatment is that the leather is still permitted to breathe.

More progress has been made in use of silicones on textiles where water-repellency and crush and crease resistance are desired. Silicone formulations are now used to treat furniture as a spot and stain-resistant finish.

A similar treatment is being applied to a very wide range of men's and women's suitings and outerwear.

One of the most startling applications of silicones during the last few months has been use on glass bottles.

The new silicone used here and sprayed on the bottles from a very dilute water solution reacts immediately with the glass surface to form a permanent, invisible, non-greasy yet lubricating coating which protects the bottle from surface scratching.

Life of bottles, particularly returnable bottles used in soft drink and dairy industries, is greatly prolonged.

Water Repellents

The last year has seen a considerable broadening in application and acceptance of silicone water repellents for masonry.

A recent Canadian Government specification covers use of 5% silicone resin solutions in solvent for application to exterior masonry walls to minimize damaging effects of water penetration and freezing and resultant ugly white efflorescence.

There have been a number of important developments and improvements in silicone rubbers.

Dow Corning Silicones Ltd. recently announced availability of the first fluoro-silicone rubber, the offspring of a marriage of the silicones and the fluorocarbons.

In addition to operating through a 600 deg. F. temperature range, this rubber resists the swelling action of practically every available commercial solvent or oil even at high temperature.

This material is of particular interest to the aircraft industry.

But the silicone applications are many and rate of new developments in the field rapid.

Can Schools Help Plastics Skillpower?

Although the outlook in the plastics industry in this country is very bright there is one serious problem that's causing increasing concern among company management.

It's the lack of trained personnel.

Canadian engineers with a knowledge of plastics are an almost non-existent commodity.

Canadian universities just don't provide courses in plastics. Technicians cannot be drawn from the technical schools, although the Ryerson Institute of Technology is doing some training in this field.

There is no organized apprentice system and only occasional in-plant training of operators and other personnel.

The Society of the Plastics Industry (Canada) and the Society of Plastics Engineers are presently taking a serious look at ways of overcoming these problems.

Committees are being established to explore the specific needs and find practical solutions. Liaison between management groups, technical groups and educational authorities is being set in motion to help provide the personnel and the training facilities necessary.

Universities will be urged to include more on plastics in their regular engineering courses.

Extension departments might even start specialized plastic courses for those in the industry and those contemplating entering it.

Technical schools and institutes will also be asked to train men on a production level and also to include some plastics in other courses.

Plastics libraries may be set up and maintained by the industry in schools throughout the country. Scholarships may be provided and summer job programs established.

How they unearth New York winter comfort ...in Pennsylvania

AT Delmont, Pa., a depleted oil field provides ideal storage space for billions of cubic feet of natural gas, delivered by pipeline from Texas. Here twelve of the biggest Cooper-Bessemer engine-driven compressors force the gas into underground storage during periods of surplus, then take it out and return it to the system as needed during the heavy winter demand. Thus gas customers can be better served and the pipeline system can operate efficiently at full capacity year around.

This, the world's largest natural gas pool, is known as the Oakford Underground Storage Project — a joint development of the New York State Natural Gas Corporation and the Texas Eastern Transmission Corporation.

The project's big Cooper-Bessemer's are on the job for two basic reasons . . . they can operate faithfully, *continuously* month in, month out . . . and, no other type of unit can match them for downright efficiency and long-range economy!

If you plan to invest in power for *any* heavy-duty service . . . on land or sea . . . it will pay you to find out about the *new* things being done by one of America's *oldest* engine builders.

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1. **RCI phenol-formaldehyde resins**—permit fast curing of shell molds for intricate engine parts; help create long-lasting battery separators; serve as efficient, economical binders for fibrous glass hood-insulation and the brake linings required to control today's higher horsepowers. (And top quality RCI *phenol* goes into important engine oil additives.)
2. **RCI surface coating resins**—include alkyd resins for superior automotive finishes and polyvinyl acetate emulsions for durable exterior masonry paints.
3. **RCI polyester resins** — combine with diisocyanate to produce polyurethane foams (currently being considered for auto seat cushions); permit fast production and uniform results in such reinforced plastics products as sturdy boat hulls and water skis.
4. **RCI pure and modified phenolic resins** — make auto waxes and polishes harder and longer-lived.
5. **RCI pentachlorophenol** — is an important ingredient in easily-applied preservatives for wood. It helps make wood exposed to weather last for many years.
6. **RCI urea-formaldehyde resins**—add wet strength to paper "windshield towels."
7. **RCI ester gums** — constitute the base for many of today's bubble gums; are also used in leather adhesives.

The next time you have a supply problem (or a technical problem), take a look at RCI. See where fast delivery of these quality-controlled RCI materials (or any of those listed with our signature) can help you.

MALEIC ANHYDRIDE—Reichhold produces and sells this important basic chemical; and uses it in making POLYLITE polyester resins. Here RCI operator checks main controls in maleic plant.

PLASTIC BEAUTY—RCI POLYLITE polyester resin is used to build the reinforced plastic hull of a high-speed outboard fourteen feet long. This ultra modern craft weighs only 350 pounds.

Creative Chemistry . . . Your Partner in Progress RCI

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MOLDING PLASTIC is a skilled process. Here a large mold is removed from a plaster pattern, part of the manufacture of plastic radar domes for civil and defense use.

Hooker Plans Big Expansion On West Coast

Hooker Electrochemical Co., Niagara Falls, N.Y., major U. S. chlorine and caustic soda producer, had more than the fast-expanding B. C. pulp and paper industry in mind when it decided to construct the first Canadian West Coast plant for chlorine and caustic at Vancouver.

Hooker saw a rapid growth for West Coast industry and with it a bigger demand for its versatile chemical twins—caustic and chlorine. It sees the now infant chemical industry expanding rapidly and in turn representing a substantial market for its products as well as hydrogen.

The adjacent Electric Reduction Co. of Canada is using brine and steam piped from Hooker's North Vancouver plant to make sodium chlorate for a pulp bleaching process.

But the growth of oil refining operations which consume caustic soda, and the piping of natural gas to the area point to excellent prospects for petrochemical production at some future date, company officials think.

Paint and Varnish Industry

Competition Spurs New Sales Research

The Canadian paint, varnish and lacquer industry is at the crossroads where genius and enterprise are needed to expand the industry's markets which last year soared to record sales of $121 million.

Outlook is for contracting and stable markets.

Reasons: Inroads by competing and substitute materials; and a depressing margin of profit resulting from increased costs in many areas of operation.

In the opinion of industry spokesmen, here's what is needed:

- More aggressive merchandising.
- Some drastic changes in thinking.
- Some new products.
- Some new uses for old products.

This year's first quarter sales have dropped more than $800,000 from the previous year.

The decrease is mostly in industrial sales, which in 1956 made up the major portion of the over-all rise of $5 million from the previous year.

Industrial sales products go mainly to other industries for application to manufactured items.

Increase was small in trade sales, or sales of architectural type coatings. This field makes up 60% of the total sales of the paint industry. A decrease in gallonage was indicated.

Intense competition is characteristic of trade sales, where business normally is done on a quotation basis. As a result profits have decreased.

The paint industry is planning a program of action to increase gallonage sales.

In the last three decades the paint industry has been transformed from an art to an industry based on scientific research.

Hundreds of new raw materials have found their way into paint formulations.

Some accomplishments of research laboratories of paint companies and chemical manufacturers supplying the paint industry:

New types of synthetic resins and new modifications of older types, modified drying oils, new and improved pigments, extenders, synthetic latex vehicles.

Recent years have witnessed some spectacular developments and great progress in the field of construction paints for both exterior and interior use.

There now are: Self-cleansing exterior white housepaints, colored exterior housepaints with a much greater degree of color retention, exterior house paints with a much higher degree of resistance to blistering and other types of film failure.

There's the two-coat systems for new exterior work as opposed to the three or four coats required not so many years ago and the true one-coat finish is probably not so far away.

Now coming on the market: Good exterior finishes belonging to the emulsion paint family and vastly improved finishes for masonry.

In the last seven years the big development in interior paints has been the availability and rapidly increasing popularity of latex emulsion type coatings. Within this general category fall the new acry-

(Continued on page 69)

Epoxy Resin Coatings Find Market in Tools, Tin Cans

Epoxy resins, the exciting new resin structural material, is seen boosting production of beverage cans by some 25%.

Excellent chemical resistance and good adhesion to tinplate are two of the main properties pushing the resins future in this big field.

Closely related to this field is the coating of bottle caps and crowns for soft drinks.

Another expanding new application for epoxy resins is in finishes in inside of washing machines.

The resins outstanding resistance to soap and detergent is the big desirable property in this application.

The final film is less than one third the thickness of the primer previously used but parts show a three-fold gain in resistance to abrasion and detergent action.

In Canada, a considerable volume of epoxy resins coatings are finding their way into trade sales finishes—bulk of the resin being used in floor varnishes.

These coatings are said to be tougher and more abrasion resistant than present widely used oleoresinous floor varnishes and exhibit better initial color and improved color retention.

This is especially advantageous for natural wood panelling in kitchens, recreation rooms and dens. The resins are also showing good results as a concrete coating.

Due to the inherent alkali resistance of these coatings, no extensive surface preparation such as acid neutralization has been found necessary.

Liquid Types

The liquid types of epoxy resins are more extensively applied to the structural resin field.

In several important fields, e.g., plastic tooling and electrical potting, epoxy resins are now the dominant material. The use of plastic tooling has expanded greatly in last several years due chiefly to advent of successful epoxy resin formulations.

Although the epoxy resin tools do not have the strength or durability of steel tools they can be used where the ultimate in strength is not required and where cost, speed of fabrication, ease of handling and ready duplication are important.

In some cases where they can be used direct, costs over metal tools are reduced by 30% or more.

Tooling time may be cut as much as 90%. At present the resins are used for auxiliary tools, such as patterns, checking fixtures, etc., as well as drop hammer dies, stretch forms and other working tools.

The major largest user of epoxy resin tools is the aircraft industry. But the automobile industry is also swinging increasingly into this material. The potential in this field is seen very large.

Epoxy resin adhesives find use in applications where high bond strengths are required.

To date major market for these materials has been in aluminum to aluminum bonding in aircraft manufacture.

These and many other exciting new applications are behind **Shell Oil Co. of Canada's** decision to build a plant at Montreal East for first Canadian production of epoxy resins (Epon resins, Shell's Trademark).

Present U. S. production capacity for epoxy is in excess of 20 million lbs. per year.

Shell's Montreal East plant, which will produce both liquid and solid type resins, will have capacity sufficient to look after the present and future needs of Canadian consumers.

Vinyl Resins Still Remain Biggest Plastics Volume

Vinyls still lead the volume parade in plastics. Last year a new peak of 29 million lb. of vinyl resins were consumed in this country. That is up 2.5 million lb. over the previous year.

But the domestic producers are not as happy over the new figure as might be expected since imports comprised about half the total consumption.

Not only that, a large number of finished vinyl products were also imported into the country which also served to limit the domestic market that much more.

But one thing the vinyl people are happy about is the exciting new vinyl product applications and the rapidly expanding market outlets in several other established lines.

Here are just a few of them:

—Auto interior trim in coated vinyl fabric and some unsupported sheeting; auto seat covers of polished clear vinyl sheeting.

—Wall coverings in coated fabrics of vinyl.

—Chrome furniture, now including wrought iron and patio type furniture is a larger-than-ever consumer of vinyl sheeting; style all important here.

—Expanding industrial uses in such things as electrical tapes, vinyl machine coverings, etc.

—Inflatable toy field still growing with wading pools an expanding item.

Best Market

One of the most promising markets of all is for supported vinyl fabrics and here one of the biggest users is the automobile industry.

In 1955 consumption of coated fabrics in Canadian-made motor vehicles, of which there were 454,000 was approximately 12½ yards per unit.

This yardage increased in 1956 to an average of about 15 sq. yds. for each of some 471,000 units. The present year should see a further increase in yardage used per car.

One of the most recent entrants into this expanding field this year has been **Canadian Resin & Chemicals Ltd.**

This is just another step in a broad diversification program started in 1954.

Another promising market application for the supported vinyl fabrics is that of wall covering.

Although there are a number of patterns and many colors to choose from the chief attraction here has been permanence.

Biggest sales so far has been to hotels, restaurants, cocktail bars.

The home wall market doesn't look too exciting as yet since the average housewife is not so interested in permanence **Monsanto (Canada) Ltd.** has been particularly active in the wall covering field.

Feeling is growing among vinyl resin and film and sheet manufacturers that more and more stress should be placed on vinyl's functional qualities rather than its decorative characteristics.

It has a broad range of excellent physical qualities, e.g. strength coupled with clarity, good insulation resistance, etc.

Most Integrated

Canadian Resins & Chemicals and Monsanto are the two most integrated firms in the vinyl field, carrying operations from the resin right to the end product.

In 1956 Canadian Resins began to manufacture polyethylene film and flat tubing, building an addition to its Ste. Therese plant for this purpose.

Now, in its latest move, equipment has been installed enabling company to extend its range of laminated materials to include types suitable for the automotive industry, the furniture upholstery business, the transportation field, the canvas goods industry and other fields.

Vinyl window shades is another fast moving line; vinyl storage bags for clothing, etc. is a further expanding field.

A look at the Canadian market for vinyl granular compounds show that wire and cable insulation is still the leading outlet.

Other major molded and extruded applications are garden hose, clotheslines, auto welting, rigid pvc pipe and refrigerator gasketing.

Acceptance of resilient vinyl and vinyl asbestos floor tile is still widening.

This is due mainly to greater use in the institutional and commercial fields.

In homes installation is no longer confined to the kitchen and recreation room, but is now found more in the living and sleeping areas, too.

OVER 1500 TONS PER DAY from AMMONIA plants designed and constructed by-

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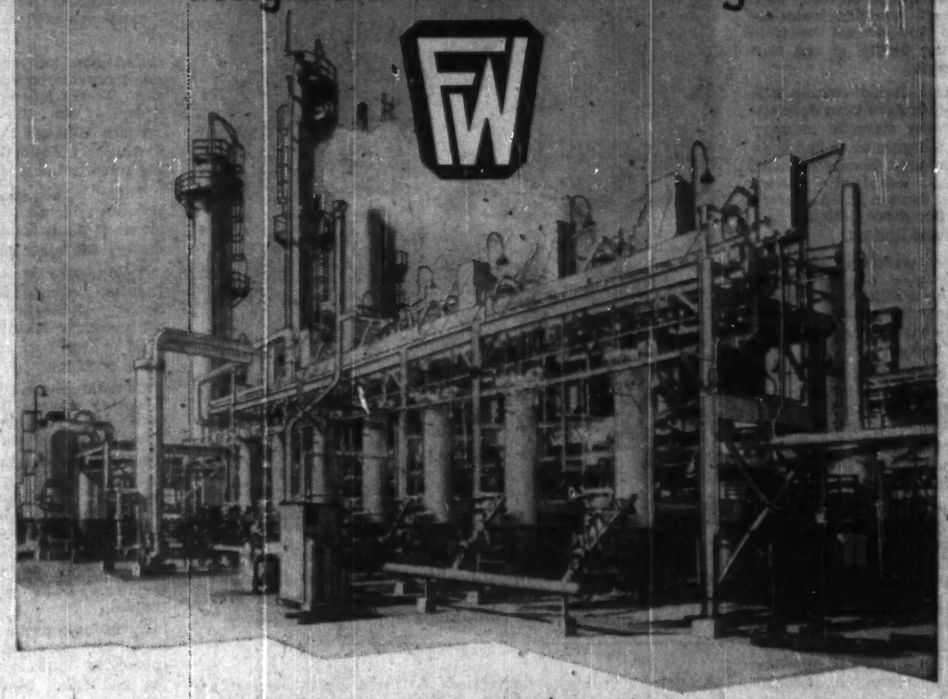

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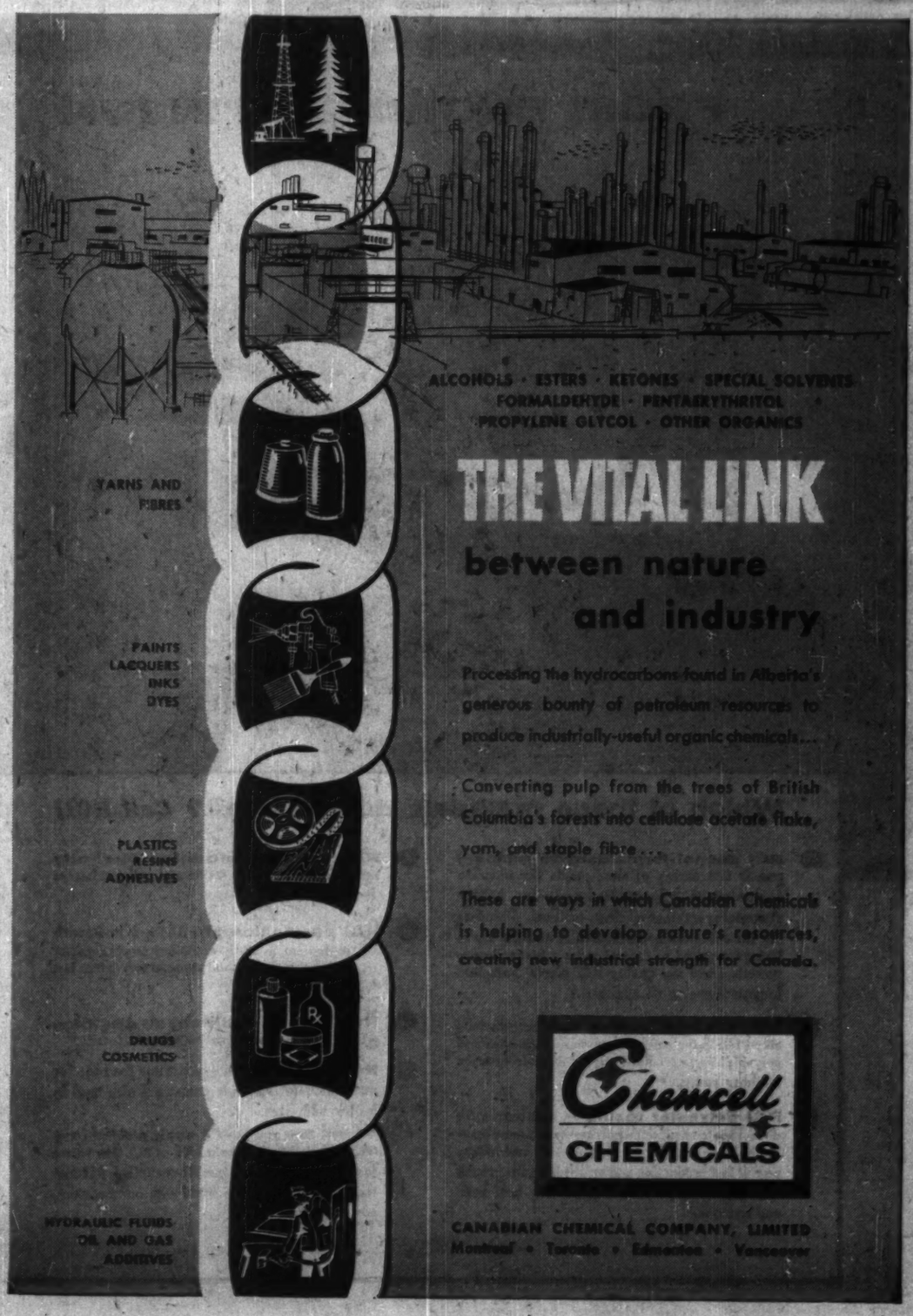


Provincial Research

Key Studies: Natural Resources Development

Provincial research bodies across Canada are more active than ever before. Their projects: the countless problems of industry and natural resources within their boundaries.

In British Columbia a large part of the work centres around forest products.

In Alberta it has to do largely with oil, gas and coal.

In Ontario the work spreads over dozens of industries, deals with the problems of many companies.

In Nova Scotia the stress is on coal and marine flora and fauna.

Here briefly are some of the chemical highlights by three active research bodies:

Alberta

Interest in the development of the Athabasca oil sands is mounting rapidly. The Athabasca river is blanketed with a second set of exploration permits.

A series of distillation experiments on oil extracted from the sand has been completed and the products are being analyzed. Some of the fractions obtained from bunker fuel produced during the distillation experiments appeared interesting, and larger quantities of these fractions have been produced for further study.

Work has continued on the characterization of the sulphur compounds in the sands oil. Selective pyrolysis of different types of sulphur compounds over alumina catalyst so far has been found to be unreliable from an analytical standpoint, even with relatively simple-type compounds.

In natural gas, the principal emphasis during the past year has been along two general lines:

1—Problems relating to production of ethylene, and particularly, acetylene by pyrolysis of natural gas hydrocarbons.

2—Studies on the separation of hydrocarbon mixtures with special emphasis on adsorption techniques. Within the past few years there has been a tremendous expansion of ethylene production and this may well be repeated in the near future with hydrocarbon-based acetylene.

This development would be of particular significance to Alberta since the high energy requirement of this process favors plants near natural gas fields.

Organic Chemistry

The major effort of the organic chemistry laboratory during 1956 has been devoted to an investigation into the constitution of humic acids and to further studies of the pyrolysis of coal in the presence of acid catalysts. Both programs have made satisfactory progress.

A comparison of the infrared spectra of humic acids, coals and synthetic materials prepared by oxidative polymerization of hydroquinone at elevated temperatures has shown that all these substances appear to have certain structural features in common.

From time to time well-preserved specimens of ancient wood have been found in Alberta, and since radioactive-carbon dating and other geological methods suggest these specimens, in some instances, to be several million years old, they may be assumed to be at least partially coalified.

Some work was carried out to ascertain the composition of these ancient woods.

Of two specimens currently under investigation, one, from the Smoky Lake area and reported to be approximately 20,000 years old, still contains lignin and carbohydrates in recognizable forms; the other, taken from the McMurray oil-sands formation and about 100 million years old, is much more extensively altered but still shows well-preserved woody structures.

As soon as the chemical analyses have been completed, it is intended to examine the nature of the altered constituents of the plant in some detail in order to establish a possible coalification route.

Assistance in elucidating the constitution of coal may be afforded by a more detailed knowledge of organic matter associated with shales. A study of the properties and compositions of kerogens has been initiated, and this will be extended in the coming year.

The fluidized coal carbonization program, which was initiated in 1955 as a co-operative program involving the Research Council and the University Departments of Chemical Engineering, has been continued during 1956 and the first stage of the investigation, a general performance study, has now been completed.

While a considerable volume of information is already available, the present investigation has confirmed the view that precise knowledge of the performance of a particular fluidization unit can only be obtained by recourse to direct experimental study.

Ontario

In the wood chemistry section of the Ontario Research Foundation study is going on into the nature and potential industrial properties of waste sulphite liquor. Not many years ago this effluent was a worthless material yet a source of water contamination.

It has now been demonstrated both in the U. S. and Canada that this waste is a valuable asset and should be utilized. The liquor itself is a complex mixture of lignin derivatives varying considerably in molecular weight, a variety of sugars and other compounds.

Work is continuing to develop methods of separating and measuring different constituents, and subsequently evaluating the lignin components in particular as sources of tanning materials and dispersing agents. Definite progress has been made in both fields during the past year.

A lengthy investigation of methods for the recovery of ammonia from the waste liquor in pulping operations is under way. Success in this endeavor will contribute materially to the success of the ammonia cooking process.

Work relating to the production of organic polymers has been continued. Attention has been directed to diradical initiation as a means for producing high molecular weight polymers. Contrary to expectations cyclic and linear monoketones appear to be poor radical sources for polymerization reactions. A large number of random polymers are being investigated in the infrared laboratory.

Throughout the year the Foundation continued to give direction and advice to the committees of industrialists which are responsible for the air pollution surveys in Hamilton and Sarnia.

At Sarnia the Foundation is trying to solve the difficult problem of fumes in the air which produce intense eye irritation. This is an occasional and not a persistent phenomenon and it is suspected rather than known that the irritant is the result of photo-chemical reactions which occur at higher levels, and that the products descend due to temperature conditions.

Basic research in the field of the phosphoric acids and derivatives continued throughout the year. The development of more accurate and discriminating methods in paper chromatography resulted in improved techniques for the analysis of condensed phosphates and their application in fundamental studies of phosphate glasses, solutions and crystalline compounds.

The service laboratory is mainly concerned with the problems submitted by smaller industries which have limited laboratory facilities. The work creates administrative problems as well as scientific ones owing to the variety of the inquiries and the unavoidable expense involved in organizing a load of work of this nature.

To a large extent the difficulty has been reduced, by accepting the simple fact that a limited staff cannot attempt to cover the whole field, and by concentrating on problems which are related to the special training and interests of the staff.

The Service laboratory file of fairly consistent clients now number 730.

Nova Scotia

The Nova Scotia Research Foundation has a diversified program on the problem of coal utilization. It supports laboratory studies to look into the possibility of extracting the carbonaceous matter of coal by means of solvents to produce a liquid fuel; researches on the mechanism of coal gasification, and studies on the polymeric structure of coal.

At the request of the U. S. Bureau of Mines, and with the co-operation of the **Dominion Coal Co.**, a 10-ton sample of Nova Scotia coal was provided for tests in the experimental gasification plant at Morgantown, West Virginia. These tests showed that Sydney coal could be used as a raw material for the manufacture of pipeline gas or synthesis gas.

Nova Scotia coals have also been tested in a low temperature oxidation plant in Belgium and the resulting anthrazalates or synthetic manures, which are particularly useful on sandy or silty soil, are being plot-and field-tested by the federal and provincial departments of agriculture.

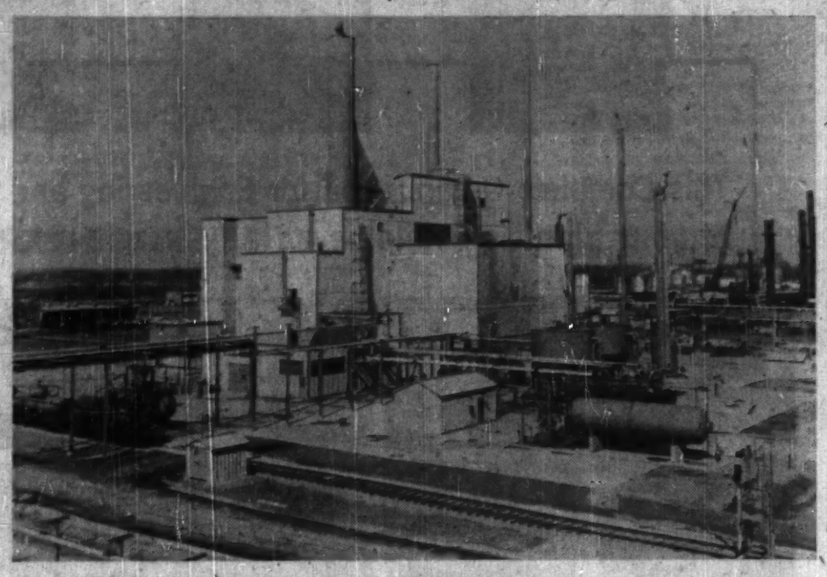
Fisheries And Seaweed

Another phase of the work in the chemical field are the studies being carried out at the Fisheries Research Board's Technological Division at Halifax, on the utilization of fish liver residues and fish muscle. The former has been shown to be suitable as sources of the B vitamins and minerals so important in dietary supplements and medicinal preparations.

From the latter a white, tasteless, odorless, stable protein flour has been developed which can be used to add amino acids to many foods.

The Nova Scotia Research Foundation sponsors an extensive program of seaweed research, which deals chiefly with non-chemical studies. The project is presently engaged in

(Continued on page 70)



HIGH-OCTANE GASOLINE for today's high-compression automobiles depends heavily on the anti-knock compound manufactured in this new $11 million plant of Ethyl Corp. of Canada, Sarnia. Tetraethyl lead is the main ingredient of the anti-knock product.

Use the Services of ▶ THE ONTARIO ▶ RESEARCH ▶ FOUNDATION

The Ontario Research Foundation is prepared and equipped to carry out research programs, development programs and investigations of both major and short term character.

Here are some of the fields of current work:

Adhesives — laminated plastics
Corrosion prevention and control
Electroplating
Iron ore concentration
Iron smelting
Inorganic chemicals
Kinetics of reactions
Oils, fats and waxes — petroleum products
Paints, varnish, lacquers and related products
Pulp, paper, printing, packaging and containers
Polymerization
Products from non-metallic minerals
Smoke and industrial fume control — air pollution studies
Utilization of new raw materials
X-ray identification materials
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Ontario Research Foundation
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Paints and Varnishes

Competition Spurs Research

(Continued from page 68)

lic and polyvinyl acetate emulsions.

Notable, too, has been the development of solvent type paints for interior use which are relatively odorless and the development of interior paints based on alkyd resins.

Increased Use

Recent introduction of jelly or thixotropic type paints caught the imagination of the general public and the spray applied multi-colored lacquers are being used to an ever-increasing degree in institutional and industrial construction.

Color itself and its effect on human personality is being understood today to a greater extent than ever before and within the last few years an infinite range of colors has become readily available and easy to duplicate.

Among specialty type coatings, fire retardant paints are becoming more effective and will be more frequently used in large building construction.

While the paint industry faces great competition from the broad variety of different floor coverings on the market, the recent development of epoxy resins has produced floor coatings with a much greater degree of durability than has been possible in the past.

In home construction and in some types of institutional and industrial construction, the exterior use of certain woods in their natural form has become popular.

The paint industry has developed clear coatings with a high degree of durability and with properties which inhibit the tendency of some of these woods to change their original appearance as a result of exposure to sunlight and all types of weather.

Probably the greatest single change in the history of latex paints was the advent and rapid acceptance of latex paints in the last seven years.

Reason for the phenomenal growth of latex paints lies in the several advantages they offer, including rapid drying, ease of application, low odor, and ease of clean-up when the paint application is completed.

Always Experimenting

There are dozens of chemical materials from which latexes can be produced.

Constant experimentation is going on and there is no doubt that in the future the paint industry will come up with combinations of materials other than styrene and butadiene which will produce emulsion type coatings far superior in some properties to those available today.

Polyvinyl acetate or PVA paints have many interesting properties. PVA paint is a dispersion of fine particles of polyvinyl acetate resin in water. There are all sorts of combinations and permutations.

PVA paints are almost odorless and are dry enough to touch about 15 minutes after application.

They can be recoated in about one hour. When properly formulated, they are self-priming, scrubbable, non-yellowing, blister-proof, mildew proof, fade proof, non-inflammable, freeze-thaw stable and can be applied to damp surfaces without danger of peeling.

In addition, they have high hiding (one coat gives good coverage), excellent brushability, leveling, stain removal (walls can be washed the next day), and can be touched up without showing brush marks.

With all these advantages, it is logical to ask why PVA paints do not have a more important percentage of the paint market. The primary reason for this is that PVA paints are new.

Like all new products, they require a great deal of extensive development. The chemical companies who supply the PVA emulsion have invested large sums in research and development programs to produce PVA emulsions with superior properties.

Paint manufacturers in turn have initiated extensive formulation and testing programs to evaluate these paints before placing them on the market. They are not yet recommended for wood surfaces.

Acrylic resin has become widely used in sheet and molded form under the trade name "Plexiglass." When properly formulated such paints exhibit the ultimate in resistance to alkali making it possible to use this finish directly over new plaster.

It has a high degree of color retention and resistance to fading and a high degree of flexibility retention as it ages.

Acrylic paints can be formulated to produce high quality interior finishes and also to produce an exterior masonry coating with properties never before available.

Although latex emulsion paints have captured a large amount of the market for interior finishes, they have not eliminated solvent-based paints nor is it likely that they will ever do so.

This opinion is shared by most people in the paint industry as is indicated by the great deal of research still being devoted to the development of new ways to enhance the usability and performance of solvent-base interior finishes.

Coming up in the future are alkyd paints for exteriors and odorless interior flats made with epoxy resins instead of alkyds.

Here comes Mary Ellen to claim her 57,805 gallons of oil!

Based on the average person's use of oil now, it will take about 57,805 gallons to satisfy Mary Ellen's needs in her lifetime.

It didn't take this young lady long to put Shell to work supplying her with oil and oil-based products!

Just as soon as she was born they bathed her with a special baby oil. Then they put a string of pink plastic beads with her name on around her neck, to avoid mix-ups. And ten days later she went home—in a car, of course—wrapped in a synthetic fiber blanket. All these things were made possible by oil.

Oil from the wells of Shell is just beginning to serve Mary Ellen. All her life we'll help keep her warm, clothed, fed, amused, healthy and on the go.

Even now Shell exploration teams are bringing in the new wells that will supply the oil she will need. Shell engineers and chemists are searching for new ways to squeeze more service out of every gallon of crude. Shell marketing men plan ways to bring the oil and oil products to her at her convenience, and at the bargain price you have come to take for granted.

Now if you'll excuse us, we have work to do. Mary Ellen is waiting for her oil.

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Sign of a better future for you

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Polymer Corp.

Synthetic Rubber Fills 'Gap'

After long and painstaking study **Polymer Corp.** — Canada's Crown-owned synthetic rubber producer — has decided to take the most important new expansion step in its postwar history.

Within the next few weeks company officials are expected to announce plans for construction of a butadiene plant at Sarnia, Ont. based on butylenes supply available from **Imperial Oil Co.'s** nearby $28.5 million petrochemical plant now under construction.

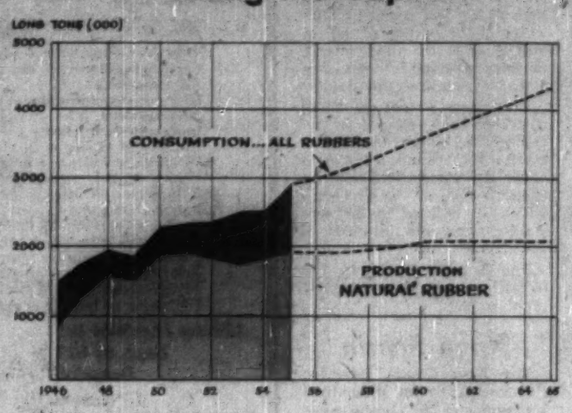
Polymer looked closely at the economics of a complete butadiene plant at Red Deer, Alta. —expected to cost around $15 million — based on low-cost butanes from natural gas operations. But the long transportation haul to Sarnia and inability to close long-term contracts for sufficient butane supplies are believed main factors swinging the plant location to Sarnia.

Since in the Sarnia plans Imperial would supply Polymer with butylene — an intermediate product — Polymer's plant undertaking will not be so heavy. Cost is expected to run around $5 million.

Butadiene, along with ethylene, are the two basic raw materials for synthetic rubber production. With its steadily expanding rubber output trend Polymer has outrun its own butadiene supply in Sarnia. Currently it has been forced to import around 25%-35% of its requirements.

The Imperial Oil petrochemical plant will process feedstock gases from company's refinery operations into a number of hydrocarbon raw materials including ethylene, propylene, normal butylenes, isobutylenes, butadiene, aromatic distillates and tars. Company had originally completed a short-term sales agreement with Polymer for butadiene.

Filling the Gap



Geared For Exports

Polymer officials are gearing up for a sharp new competitive era in the world export markets and realize that every efficiency and economy feasible will be needed to hold and expand further overseas markets. Competition from the privately-owned U. S. synthetic rubber plants is being stepped-up, at the same time increased rubber making capacity is being installed in such important marketing countries as the U. K., Germany and Italy.

Since Polymer's capacity and current operations is running about double domestic market requirements it is necessary that a strong position is maintained in the export markets.

Polymer officials are confident that with the company's long-established position in the world export market, its unique integration and know-how, its top quality research team and the new butadiene plant they will be able to maintain their export position.

"We don't feel handicapped at all on the research front," a Polymer official told **FP** recently. "In fact we are in a position to compete with the best of the U. S. synthetic rubber manufacturers and we'll certainly strive to hold this position."

The two major disadvantages the company will have to overcome in competition with Gulf based U. S. plants are high steam energy costs at Sarnia and Polymer's remoteness from ocean shipping.

In certain cases the Gulf Coast rubber plants are operating on natural gas energy costs roughly half those of Polymer's. Officials are hopeful, however, that industrial gas rates once the western Canadian gas is available in Ontario will permit large-scale use of this energy at considerable savings. Company could use up to 40 million cu. ft. daily of gas.

Its boilers could be switched over from coal to gas almost overnight so that operations should profit from expected attractive off-peak gas rates.

Synthetic Rubber Need

Polymer has its sights set for a further peak production year of 130,000 long tons—a 10,000 tons increase again from 1956, the previous record year. Officials hope to keep up this growth trend line over the next five years.

Certainly world consumption of new rubber is growing at a fast pace and since output of natural grades has plateaued off — and will remain that way for some years — all of the annually increased requirements must be supplied by synthetic.

A forecasted rubber consumption trend line in Canada shows demand increasing at an average 5% rate for the next five years.

Total consumption in 1956 was 92,455 long tons. This year it's expected to rise to 96,000 tons and by 1960 to 111,000 tons. It's certain that practically all of this annual increase will be supplied by synthetic rubber.

At the same time, rubber product manufacturers are using an increasing proportion of synthetic in their products. Last year 52.5% of all new rubber used in Canada was of synthetic grades. The previous year the proportion was only 48%.

Bright Market Outlook

From an over-all world demand position then the marketing outlook for synthetic rubber is very bright. As for Polymer's position it boils down to this — will additional synthetic rubber plant capacity overseas and in U. S. increase faster than world demands?

Synthetic rubber production in the U. K., Germany and Italy is scheduled to commence during 1958 and 1959. This will limit export potential in these countries for the time being. It is expected, too, that manufacturing facilities will also be established or expanded in other countries as time goes on.

CANADA FOR THE FIRST time this year started producing its own nylon resin for molded parts. The resin goes into various gears and other plastic parts.

Studying Natural Resources

(Continued from page 69)

making a survey of the amount and kinds of seaweeds on the coast and in studying on the growth and harvesting of this valuable resource.

Recently, work has been initiated on the utilization of the hydraulic properties of granulated blast furnace slag for the preparation of low heat, sulphate-resistant cement and for lightweight and aerated concretes. Granulated open-hearth slag has been found to be a valuable source of phosphorus as well as a suitable source of lime for acid soils.

The most extensive chemical studies are related to the soils, and the produce from the soils, of Nova Scotia. The Foundation has supported studies of the trace elements in the soils and their relation to plant and animal nutrition. Seaweeds and other local materials have been studied to determine their value as fertilizers.

Studies of cobalt, boron and molybdenum deficiency in soils and plant tissues have resulted in reductions in the numbers of animals suffering diseases due to lack of such trace elements.

Radioactive and X-ray techniques have been used to develop new and improved types of apples and the work is being extended to other fruits and vegetables.

An extensive program of geophysical exploration has assisted local industries in seeking new and extending present deposits of barytes limestone, salt and gypsum. This shows that the deposits of salt in Nova Scotia are much more extensive than formerly believed and this points to the possibility of locating potash somewhere in these formations.

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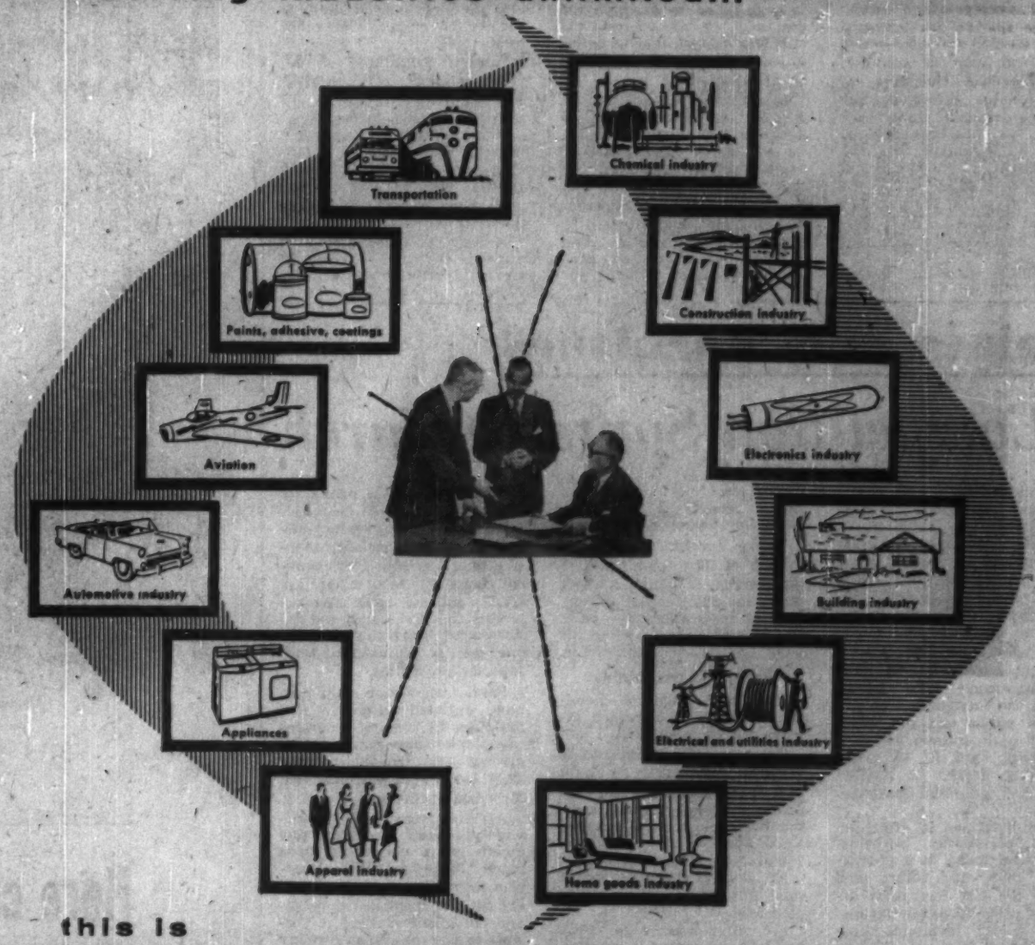

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CANADIAN RESINS

—a leader in plastic materials production, deep in practical research, broad in manufacturing

From the production of chemicals for jet-age lubricants, vinyl resins, emulsions and plasticizers—to the manufacture of vinyl compounds, films and sheeting—the printing and embossing of films—the manufacture of coated fabrics and the production of polyethylene films—Canadian Resins maintains its place of leadership as a resource for both basic and finished plastic materials.

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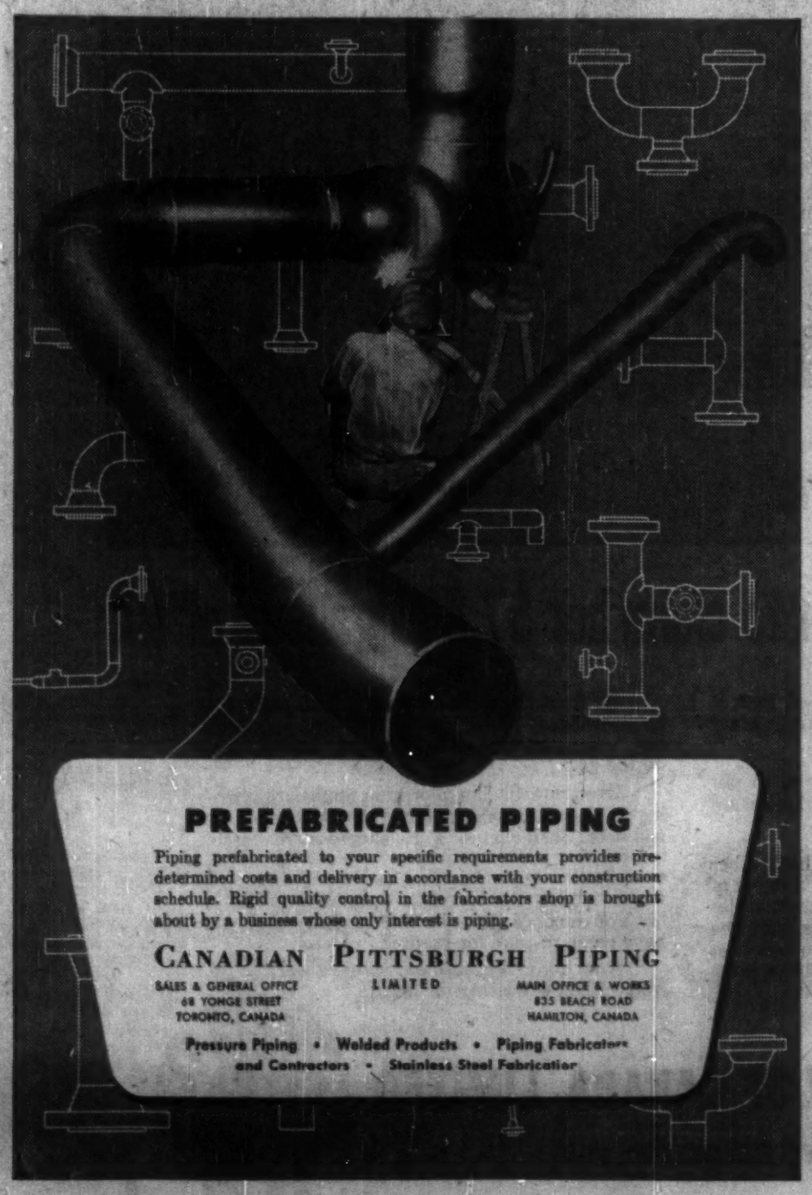

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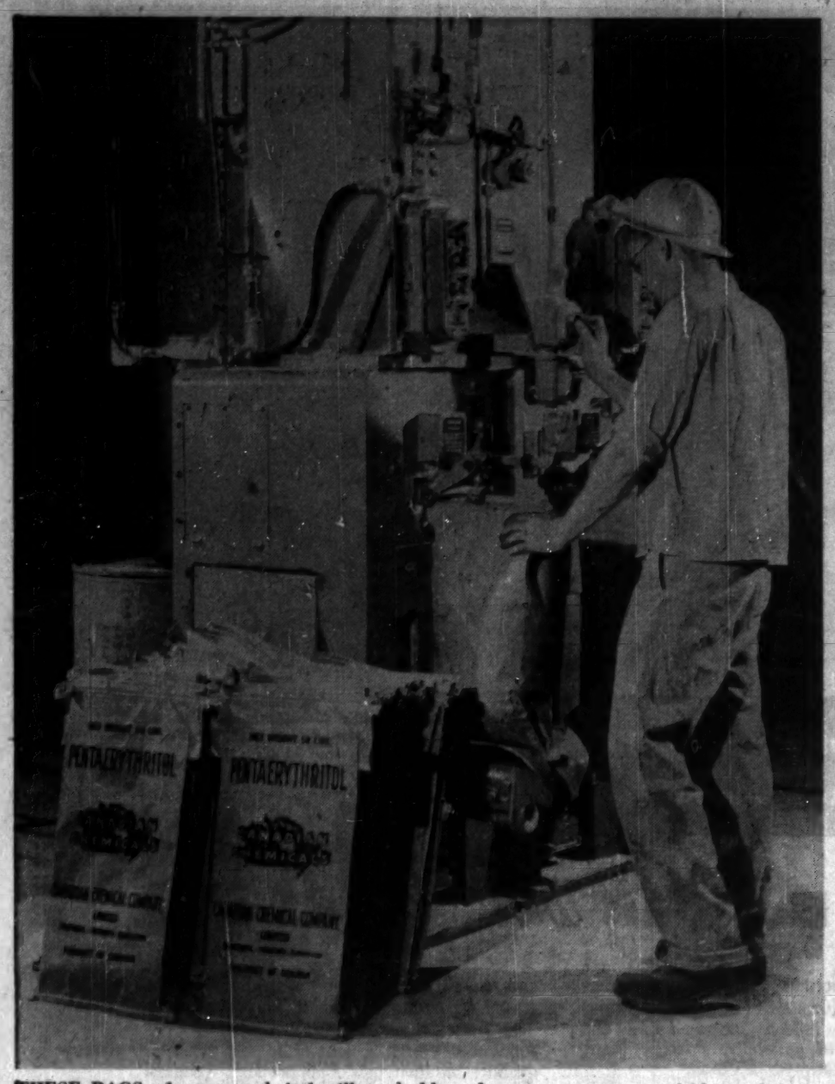

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Potash 'Rush'

New Firms Join Sask. Boom

Saskatchewan with probably the largest potash deposits on the North American continent is likely soon to challenge the long-established supremacy of the Carlsbad deposits of New Mexico.

Just a couple of weeks ago a second major potash producer —**International Minerals & Chemical Corp.** — announced plans to start an immediate shaft-sinking program on a 450,000-acre site which company controls in Saskatchewan.

Company's territory is near Esterhazy, 150 miles east of Regina.

With International definitely committed to a mining operation, this makes two of America's leading potash companies that have advanced from exploration to underground development in the central Saskatchewan potash field.

Potash Co. of America has been active in the province for a couple of years and company's shaft is past the halfway mark in its descent to the potash beds some 3,000 feet under the prairies.

Potash Co. of America's mining site is located almost in the centre of the province's 340-mile-long potash belt.

International's exploratory work led it to select a location on the eastern extremity of the belt.

Potash Co. of America has already announced construction of a $15-$20 million concentrator would start this month. Company's production target date is sometime in 1959.

Commenting on the character of the Canadian ore, Louis Ware, **International Minerals & Chemicals** president, stated, "It has been thoroughly drilled and has proved of higher grade than that in New Mexico."

The potash deposits are 3,000 ft. below the surface and the seam occurrences being almost horizontal favors mining it in a manner similar to Carlsbad.

Contract for shaft and plant has been let to **Utah Construction Co.** of San Francisco and work is to be rushed to complete the buildings before the end of summer.

Mr. Ware said International's Saskatchewan site contains ample reserves for a mine that will produce at more than twice the rate of the company's Carlsbad mine.

In recent year's the company has been supplying about 20% of the potash product used in the U. S.

Limited markets and costly mining operations has so far held up development of the Saskatchewah potash fields. Now expanding markets and ready access to the central U. S. states are spurring the development decisions.

Basic Ingredients

Potash is one of the three basic plant ingredients—along with nitrogen and phosphate and its biggest outlet is in mixed fertilizers.

Unfortunately the Canadian prairie soil is fairly well supplied with potash as yet so there is a relatively small market available there.

Major markets will be in the Middle U. S. and Eastern Canada.

It is thought likely that the major potash firms which will be operating in both mining areas — Carlsbad and Saskatchewan—will establish an invisible marketing line (determined largely by freight costs) running somewhere through northern and central U. S. with the northern area supplied from Saskatchewan fields and the southern division supplied from Carlsbad mines.

It is thought now that the Saskatchewan mines might be able to compete for about 40% of the big U. S. market now running around two million tons annually.

In Canada annual consumption is running around 35,000-40,000 tons a year.

Potash is also used in potassium compounds in production of matches, explosives, soap and high-octane gasoline.

All told some 18 companies are now active in the Saskatchewan potash fields and others are planning early decisions on underground operations.

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Defense Research

Your Wife in Synthetic Fur?

By DR. J. C. ARNELL, Director of Scientific Intelligence, Defence Research Board.

A number of developments of the Defence Research Chemical Laboratories (DRCL), of Ottawa, sketched from their beginnings will demonstrate the type of work carried out at the Ottawa laboratories.

Security restrictions permit partial coverage only.

Some specific developments and research results which stem from DRCL's activities will illustrate the type of chemical research carried out within the Board.

Most methods of detecting carbon monoxide in the air employ a reagent to convert the gas to carbon dioxide.

The amount changed is estimated by the temperature rise in the reagent or changes in its composition or color.

Until recently, such reagents which were not poisoned by water vapor were unknown. Complicated apparatus and techniques were necessary therefore to keep the reagents dry during use.

The poisoning factor caused many complications in the design and operation of automatic carbon monoxide detecting devices because the latter were effective only as long as the drying agent continued to function.

This necessitated the introduction into the apparatus at regular intervals of fresh dehydrating material if pure air only was being drawn through the apparatus.

A new reagent of silver permanganate mixed with zinc oxide has been developed at DRCL.

Hard Pellets

This can be formed into hard pellets and requires a slight amount of water vapor to initiate operation. It will function successfully at all relative humidities from a few per cent to 100%.

Because drying agents are not required, the advantage of such a reagent in automatic alarm systems is obvious.

During a series of cooperative tests on chemical warfare protective equipment with the Army at Fort Churchill, DRCL representatives noticed that the Arctic clothing worn by service personnel was heavy and restrictive.

They noted also that wolverine fur was far superior to other furs such as wolf and cariboo as trimming on parka hoods.

The main point of difference lay in the frost-shedding properties of the different furs.

When the parka hood was drawn tightly about the face, frost formed on the fur around the nose and mouth from exhaled breath.

With wolverine fur however, the frost could be knocked off readily by tapping the fur.

Detailed examination of the different furs showed variations in the degree of roughness of the hairs which in turn, affected the frost's cling tendencies.

Further investigations revealed however that while the individual hairs of most furs comprise mainly air and have a density of approximately one-tenth, wolverine fur consists of solid hairs with a density of approximately one or 10 times that of other furs.

Wolverine Best

The wolverine fur hairs therefore, exhibit a much greater physical strength than others and can withstand more of the rough treatment necessary to knock off accumulated frost.

It was decided then to try to develop a fabric to replace fur in Arctic clothing.

The cooperation of industry was enlisted and after several false starts, a satisfactory nylon pile fabric was produced that resembled polar bear fur and which was light in weight, resistant to frost and relatively inexpensive.

Because a woven fabric is normally not windproof, a latex backing was therefore developed.

This was designed to make the synthetic fur windproof and at the same time, to make it porous enough to allow body moisture to permeate through the fur and appear as frost on the outside.

This was particularly necessary for conditions of heavy work in the cold. This latter quality is one of the main characteristics of natural furs.

Tests carried out on clothing made from the material indicates that personnel could live in an igloo and work out of doors under Arctic conditions wearing only 12 lb. of clothing.

The civilian market has shown interest in the fabric to the extent that a U. K. firm acquired the world patent rights everywhere except for Canada.

Nylon fur coats in all colors are now on sale in many of the London stores at reasonable prices.

Another problem studied at DRCL arose from the fact that at temperatures of 40 and 50 degrees below zero, standard lead storage batteries possess only about 10-15% of their efficiency at normal temperatures.

Coupled with the thickening of lubricating oil under cold conditions, this makes the starting of internal combustion engines in the far north a very real problem.

New Batteries

Research is currently under way to develop new types of storage batteries based on systems other than lead-acid.

While security regulations prevent the provision of details on this project, some success has been achieved to date.

Another direct application of defence chemistry to a civilian problem lies in the field of atmospheric pollution.

Under the sponorship of the International Joint Commission, DRCL established a laboratory in Windsor to undertake the Canadian share of a study of the atmospheric pollution conditions in the Windsor-Detroit area.

This problem, which today is becoming serious in most cities of any size, is aggravated in the area under study by the concentration of heavy industry on both sides of the border and the large volume of shipping that passes up and down the Detroit River.

The techniques for measuring the concentrations of toxic and semi-toxic gases such as sulphur dioxide and chlorine, as well as that for obtaining samples of solid aerosols, were in many cases worked out originally in connection with chemical warfare.

The methods used to estimate the down wind concentrations of smoke and gas and associated problems of micrometeorology in virtually every case, can be traced back to work done during both World wars on the setting-up of smoke screens and gas clouds.

The attendant theories of the mechanism of diffusion of gases and aerosols in the atmosphere originally developed for use in the field of battle are being used every day in the continuing civilian effort to clean up the air over the cities of North America.

Work on the development of (Continued on page 72)

More Variety, Bigger Molds In Plastics

Molding machines are getting larger and larger. Some of them are now producing such items as polyethylene garbage pails, polystyrene refrigerator door liners and heavy battery cases.

The largest machine in Canada can mold 90 oz. of material in one shot. In the U. S. machines with 300 oz. capacity are now in use.

At the same time much smaller machines are coming into use to turn out small intricate parts at rapid rates of production on a fully automatic basis.

These machines turn out a myriad of small parts such as nylon gears, closures and containers at rates of up to 1,000 shots an hour.

Complete batteries of six or more machines can be serviced by only one operator.

Where does the future lie in the molding equipment field—in large or small machines?

Top industry officials say development will continue in both directions, with larger machines becoming even larger and more versatile and the smaller ones becoming faster and tying in with completely automated production and finishing equipment.

The smaller work - horse range of equipment is broadening out from four to 32 oz. and should show an increasing degree of automatic operation.

Believed the largest weight capacity injection molding machine in use in Canada is the Watson-Stillman machine recently installed at the Ste. Hyacinthe, Que., plant of Beacon Plastics Ltd. (Canadian representatives of Watson-Stillman division are Barnett J. Danson & Associates Ltd., Toronto.)

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. . . items of intricate shape or size that are not only difficult, but often impossible to polish mechanically, can be quickly *and uniformly* polished.

. . . the finish obtained may serve as the final, finished surface or as a base for electroplating.

ERCO phosphoric acid is also widely used in the acid pickling of aluminum and steel. In addition, ERCO phosphorus compounds are employed for many other forms of metal processing. In phosphate coatings, for example, they not only help to rustproof steel parts but also provide a base which protects paints against the early loss of adhesion.

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ACETATE YARN is wound on spindles in the Edmonton plant of Canadian Chemicals Co. These yarns will end up in dozens of clothing items, drapes, automobile upholstery.

Pesticide Market

Pests Cost Canada $1 Billion

Every year Canadians face a bill estimated at $1.25 billion.

That's how much is said to be lost on the land through damage caused by weeds, insects, disease.

It is a staggering total. And the main way to reduce it is through the use of chemicals.

But the big problem is to get the chemicals taken up by farmers.

The chemical industry in Canada is making more than 3,000 different pesticides.

The technical problems that have to be solved are of a minor nature compared with the problem of marketing and publicizing these products.

Here's how the damage bill is made up:

—Weeds $330 million.

—Insects $312 million;

—Plant diseases $200 million;

—Rodents $300 million.

Add to this the annual damage to forests for which $100 million would be a conservative estimate and one has a total some 50 times bigger than the amount spent each year on combating damage.

The annual bill for pest control products this year is likely to total some $25 million.

This amount is growing every year. By 1975 it is likely to have multiplied four times.

Sales of pest control products in Canada only amounted to $7.2 million 10 years ago.

The total jumped to $10.3 million in 1948, $12 million in 1949, $13.5 million in 1950, $15.8 million in 1951, $16.2 million in 1952, $17.2 million in 1953, $19.3 million in 1954 and $22.8 million in 1955.

These figures from the Dominion Bureau of Statistics are only available up to 1955 at present.

But the industry reports that sales have increased steadily since 1955 and the present $25 million figure may in fact be low.

$1 billion by 1975?

The Canadian sales pattern is very similar to trends in the U. S., but about 10 times smaller.

In the U. S., pesticide sales jumped from $40 million in 1939 to $260 million in 1954.

The industry is talking in terms of $1 billion sales by 1975.

The $260 million U. S. market is shared mainly by insecticides (36%), fungicides (32%) and herbicides (13%). The balance is divided as follows: Miticides 8%, soil fumigants 5%, space fumigants 4% and rodenticides, repellents, etc. 2%.

A similar market breakdown is not available in Canada, but these are the approximate proportions of the different chemicals in our market: Agricultural dusts and sprays 34%, herbicides 25%, livestock treatments 21%, household and industrial insecticides 18% and rodenticides 2%.

In Canada one of the most striking features for the market has been the sudden surge in pest control products for livestock treatment. Latest figures show sales of these up 73% in 12 months.

In comparison, herbicides increased 21% in 1955 over the previous year, agricultural dusts and sprays 6% and rodenticides 11%. Household and industrial insecticides were down 1%.

Money spent on insect control brings in a tremendous return. There have been some notable demonstrations of this in Canada.

In Alberta a $6 million crop threatened by grasshoppers was saved by spending $50,000. Some 296,000 acres were treated for which the return was 120 to 1.

In Saskatchewan $1.2 million was spent when grasshoppers threatened a $50 million crop. This action provided a 41 to 1 return on the money.

In Alberta, in 1953, seeds were treated against wireworm attacks for a 10 to 1 return on the investment.

In general it is estimated that insecticides yield 20 to 1 as an investment, herbicides 10 to 1, fungicides as much as 50 to 1.

Take an average of the return on all pesticides used and one would find that $1 spent brings $20 in increased yields and better products.

Pesticides are applied in a variety of ways with aircraft and even trains used to distribute them. **Canadian National Railways** spends as much as $750,000 keeping weeds away from tracks. Special trains covering 40 miles a day spray weedkiller from tanks.

This action not only reduces the danger of fires started by sparks landing in thick undergrowth. It keeps weeds from spreading to adjacent farm land.

About 70 aircraft are being used in Canada for distributing pesticides.

This technique has proved of particular value in New Brunswick, for controlling attacks by spruce budworm, and in southern Ontario, for treating tobacco crops.

Two Newcomers

Every year the range of pesticides on the market is extended. Two important newcomers are **Shell Oil Co.'s** phosphate insecticide Phosdrin and **J. R. Geigy's** weedkiller, Simazin.

Phosdrin is a toxic insecticide which has to be applied wearing protective clothing and a mask. It can be used against a wide variety of vegetable and fruit insects.

Simazin, introduced into Canada by **Chipman Chemicals Ltd.**, is claimed to stop most broad-leaved and grassy weeds from emerging by preventing growth at the time of germination.

It is relatively non-toxic and if applied at five to ten pounds per acre, is said to control most weeds, including purslane, common ragweed, lamb's quarters and wild carrot, for as long as 12 months.

Another new chemical of interest to farmers is Maleic Hydrazide, made in Canada by **Naugatuck Chemicals.** It has been approved for use on potatoes and edible onions.

While other chemicals combat pests, weeds and disease, Maleic Hydrazide is designed to combat sprouting and shrivelling in potatoes and onions when stored. It is sprayed about two weeks before harvesting.

Defense Research Develops 'Better-than-the-Real' Fur

(Continued from page 71)

a new respirator has led the staff to design and make plaster and metal moulds for fabricating the rubber face masks of the prototype respirators which are moulded in the laboratory rubber shop.

DRB has supported research at **Polymer Corp.** in Sarnia leading to a satisfactory low temperature rubber and has used the results of this work in a continuing program of experimental rubber mixing and testing.

By keeping abreast of new developments, the Board supplied a geographical party in the Arctic with rubberized waterproof moccasins with uppers that remained completely flexible under all conditions and soles which showed a marked abrasion resistance.

In Ottawa, the Board maintains a small, well-equipped pilot plant which operates in conjunction with the research laboratories and serves a dual purpose—the extension of laboratory work on new chemicals and the production of existing chemicals not available commercially.

From time to time a new chemical is developed in the laboratories with a potential service use.

In order to provide an adequate quantity of such a material for full assessment, limited production is undertaken in the pilot plant.

In the field of organic chemistry, many compounds with possible future military significance either in the fields of explosives or chemical warfare have been synthesized.

Normally, whenever such compounds have been proven to be of little military significance the Board's policy has been to publish such work in the open literature.

Another example of this is related to the chemistry of the nitroguanidines.

Gave Stimulus

Nitroguanidine is an important ingredient of flashless propellants and the last war gave a continuing stimulus to research on this compound and its derivatives.

Investigations have provided many new derivatives of nitroguanidine and have resulted in the introduction of new methods for their preparation.

In addition, the structure of nitroguanidine has attracted considerable attention along with the mechanisms of its reactions.

It has been possible recently to apply fundamental organic chemical theory to this relatively new group of organic compounds and then to predict the behavior of new derivatives before synthesizing them.

A unique research facility maintained in Ottawa is the DRCL fluorine laboratory.

Established during the last war before fluorine was available in cylinders, it has resulted in the creation of an appreciable generation capacity.

Because there was then no completely satisfactory design for a production generator, one was developed to operate on a current of 75 amperes.

It produced ½ lb. of fluorine per hour. A number of generators of similar design were built and have operated satisfactorily for a number of years.

Fluorine chemistry is a comparatively new field. It is potentially one of the largest in the whole science because in addition to the inorganic side of fluorine chemistry, practically every organic compound theoretically has a counterpart with part or all the hydrogen replaced by fluorine.

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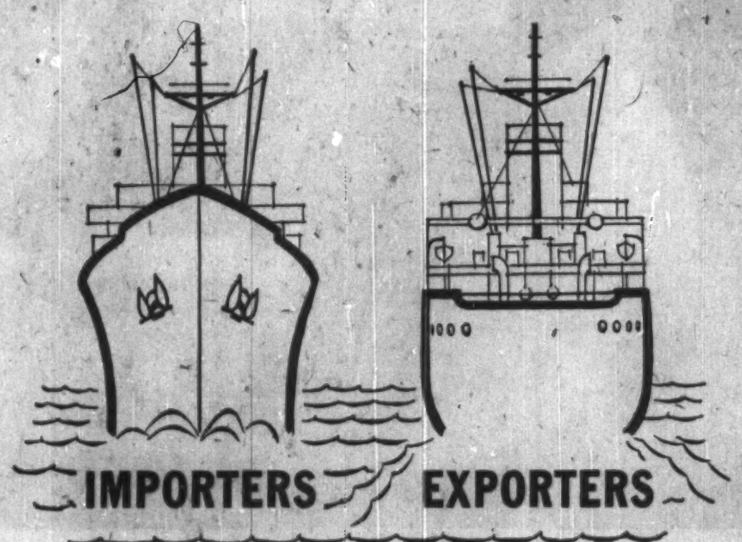

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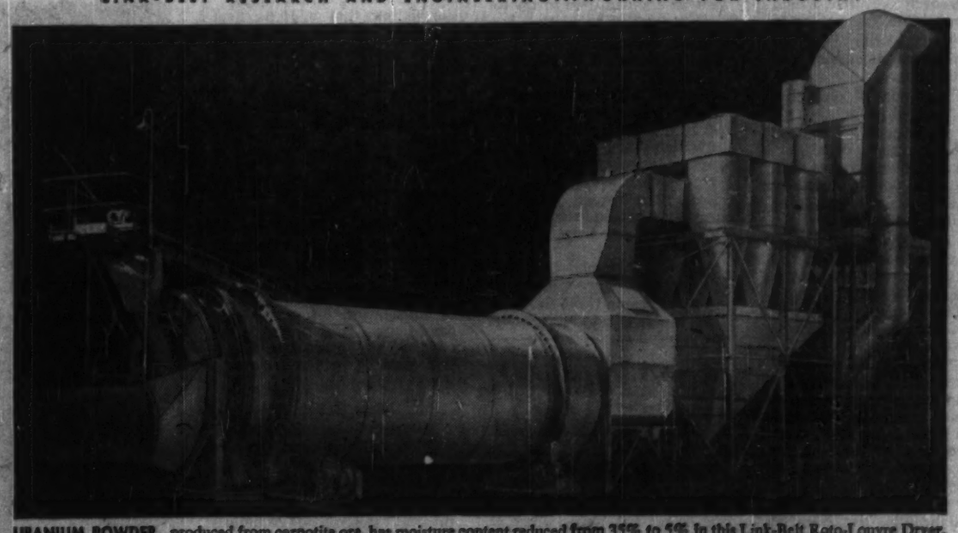

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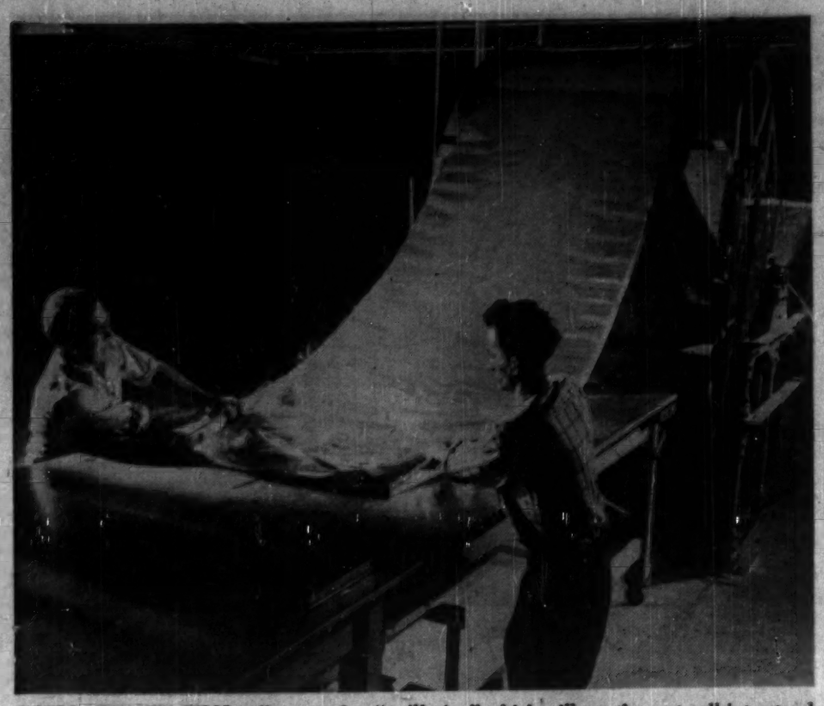

"CELLOPHANE" FILM rolls toward a "guillotine" which will cut the vast roll into standard size sheets. The table has air jets to help move the film easily. This is the Du Pont Co. of Canada's plant at Shawinigan Falls, Que.

Build Biggest Plastic Radar Ground Dome

Canadian designers and plastic manufacturers have combined forces to produce a unique product for the defense of Canada.

Designed for the protection of ground radar installations this 26 ft. reinforced plastic sphere is said to be the largest plastic article ever made in Canada.

The plastic sphere is expected to replace the rubber inflated type of housings now in general use in the far north and to find additional applications, where protection against weather and high velocity wind is required.

Built of fibreglass cloth and polyester resin it has the advantages of unlimited life and rigid construction.

The dome was designed by G. Drzewiecki of the National Research Council and built by the **Brunswick-Balke-Collender Co.**, Reinforced Plastic Division which is the principal producer of airborne radomes in Canada.

NRC will carry out extensive tests on the first prototypes to assure complete satisfaction before the dome goes into general use by the RCAF.

Tariff Question

Can't Afford to Share Market

By DR. R. S. JANE
President, Shawinigan Chemicals

In Canada, owing to our relatively small population, there are a limited number of industrial chemicals for which the domestic market is sufficient to support the minimum economic unit.

This number would be very much greater if the Canadian manufacturer was not required to share his already small market with the large producers in the United States, the United Kingdom and Germany.

The Canadian tariff today as applied to chemicals is in many cases quite inadequate to protect the domestic producer against foreign importations.

Furthermore, the Canadian manufacturer of chemicals is at an additional disadvantage because he is barred from his competitors' domestic markets by prohibitive tariffs or foreign exchange restrictions.

Before World War II the Canadian chemical manufacturer had access to a fairly diversified world market, particularly in the Commonwealth and the so-called soft currency countries.

Since the war, however, export business in chemicals to the United Kingdom and other sterling countries has seriously declined, owing to currency restrictions and lack of dollars in the hands of the importers.

At the same time there has been a marked increase in chemical production, especially in the Commonwealth countries.

This development is certain to adversely affect exports from Canada as there is no reason to believe that the British manufacturer cannot produce at a cost as low, if not lower, than his opposite number in Canada.

Geographically at least our logical market for chemicals is in the United States, but in the case of many of our products the tariff virtually renders trade prohibitive.

In attempting to forecast the prospects for the future of a Canadian chemical company it would be quite unrealistic in my opinion to predict our future prosperity on an expansion or even the maintenance of our present export trade. It would seem our best prospects rest in the development of the home market and the fostering of trade within our own borders.

This can only be accomplished by encouraging secondary manufacture, using our natural resources to provide the raw material for the secondary industries.

But let us not deceive ourselves. Our growing Canadian market, particularly for secondary chemicals, is going to be vigorously and bitterly contested by the large foreign producers who already have a foothold in this country.

It is logical to assume that the greater the Canadian market becomes the greater will be our share, but the important question is how much greater, and this amount will finally determine the rate of growth of the Canadian chemical industry.

Research

While Shawinigan has carried on industrial research on a comparatively large scale for more than 35 years and has developed important new processes and products, it must be admitted that the most important of these have had to be exploited outside of Canada.

Furthermore, it is rarely, if ever, possible for industrial research in Canada to be justified on the return from royalties on patented inventions and it would be quite untrue to say that income from this source justified the whole Shawinigan research program.

Actually, what has made this program possible from the standpoint of return on the money invested in research and development is the successful exploitation of our inventions in foreign countries, principally in the U. S.

The exploitation of the results of Canadian research in foreign countries, like the foreign sale of our natural resources in the form of basic raw materials, will not for long support our growing population and permit us to develop into a strong and prosperous nation.

This problem, like the marketing of chemicals, is intimately associated with the absence in this country of a well-developed secondary manufacture without which industrial research will never be on an entirely satisfactory basis.

In spite of all the problems and difficulties we are facing, I am still very optimistic for the future, not only of my own company, but for all Canadian enterprise.

But let us make no mistake, our success will be in direct proportion to our effort, and that means the effort of all—not only those of us in industry, but also you in institutions of higher learning who must contribute to the study of the problems associated with the sound industrial development of this country. It is my understanding that is the purpose of this Seminar.

Plastics in Housing

All-Chemical Home by 1968

A house of revolutionary design which would include a substantial proportion of plastic items as well as other new materials may bring purchase of a new home within reach of Canada's lower-income groups —but it may take some years.

Government and industrial leaders have been studying the problem of reducing the cost of new homes for several years past. But among seemingly insurmountable obstacles to substantial reduction in costs have been soaring land prices and rising labor and material costs. Now it seems that most have come to the conclusion that about the only apparent way to cut prices is to revolutionize design, develop new materials and standardize construction.

Some of the thinking in industry and government circles was revealed recently in Toronto to members of the Specification Writers Association by A. R. Craig, president of the Building Centre.

He said that Stewart Bates, president of **Central Mortgage & Housing Corp.**, and Sam Gitterman, also of CMHC, had traveled extensively in Canada and the U. S. investigating the problem and encouraging research into new fields.

The chemical industries have been experimenting for some time, and perhaps the greatest contribution in the field of new and revolutionary products has been in the plastics division, which has already found a big and steadily growing market for some 50 methods of using plastics in today's buildings.

"While traditional materials are certain to continue to play a large part in home building, plastics open up undreamed-of possibilities and a lot of changes are going to happen faster than we might think," he said.

He thought the only way to reduce building costs was to encourage research, standardize and adapt a modular system, and encourage mass production methods of units prefabricated in the factory.

The plastics industries have prepared a possible progress chart, outlining how fast plastics may find wide commercial acceptance, and use in home building. Here is how it goes:

—1958. Partition panels — standardized, movable, with integral finish. Now used in commercial buildings, especially prefabricated, two years from now.

—1959. Whole walls (non-load bearing), plumbing fixtures, roof panels. The plastic wall and roof panel will be a unit embodying interior and exterior finish.

—1960. Complete windows; prewired, prefinished, insulated, ceiling panels.

—1961. Complete bath assemblies with pipes and fixtures molded in wall. The molded bathroom with plastic piping will come in two pieces that nest together for shipment.

—1962. Complete mechanical cores that can be traded-in like autos. Structural plastics will make it possible to assemble primarily metal equipment in one unit.

—1963. Full floor units incorporating ducts and wiring. Finish floor on top, finish ceiling on bottom will be strong enough for heavy use on 4 ft. centres.

—1964. Unitized kitchens whose components can be traded in.

—1965. Whole house in packaged room units.

—1966. Plastics will make possible solar heat and power in many regions. Collecting mats of plastic for storing sun's energy mechanically or electrically will come on the market.

—1967. Stabilized soil housing. Roofing held by inflated plastic tubes. Vacation housing, temporary and military housing will be made of plastic and earth mixed at site.

—1968. Plastic domes to cover the total living unit, including garden. Under domes people may live in controlled climates with "outdoor" living all year round.

Experiments are also being carried out in the field of sewage disposal. The Research Department in Ottawa is studying this problem and the goal chemical unit. A unit of this type has already been developed in the States and the system employed also does away with a main water supply.

The future house may also have a power unit—which will be the control unit—in which will be housed the plumbing, the disposal unit, the kitchen, the bathroom, a self-contained heating and lighting unit (probably an atomic device) and a radio, television and telephone.

To this unit will be added or coupled living and bedroom units — all of them made to a module which will allow each individual unit to be changed for a new model.

There is no reason whatever why plastics should be the only material used in the shell of the future house, but manufacturers of other materials will have to be on their toes and keep abreast of the times.

The builder's role will change. There will come a time when building materials will be sold to fabricators and the work on the site will be a matter of hours.

The larger the variety of materials used in housing, the greater the scope for design.

Winter weather around Black Lake Quebec didn't prevent the erection of this 1500 ton steel job on time.

There were problems, of course, but none that Central Bridge hadn't encountered before. Long experience in supplying steelwork for bridges, mines, power stations, commercial and industrial buildings suggests that you contact Central Bridge before proceeding with your project. May we hear from you?

New Mill Building for Lake Asbestos of Quebec Limited at Black Lake, Quebec. Owner is American Smelting & Refining Co., New York City.

Consulting Engineer:
Kilborn Engineering (1954) Ltd., Toronto

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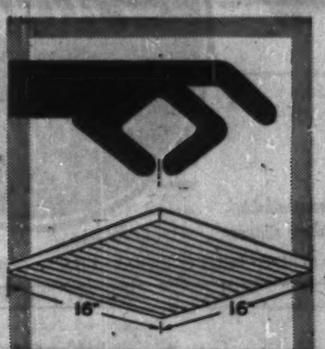

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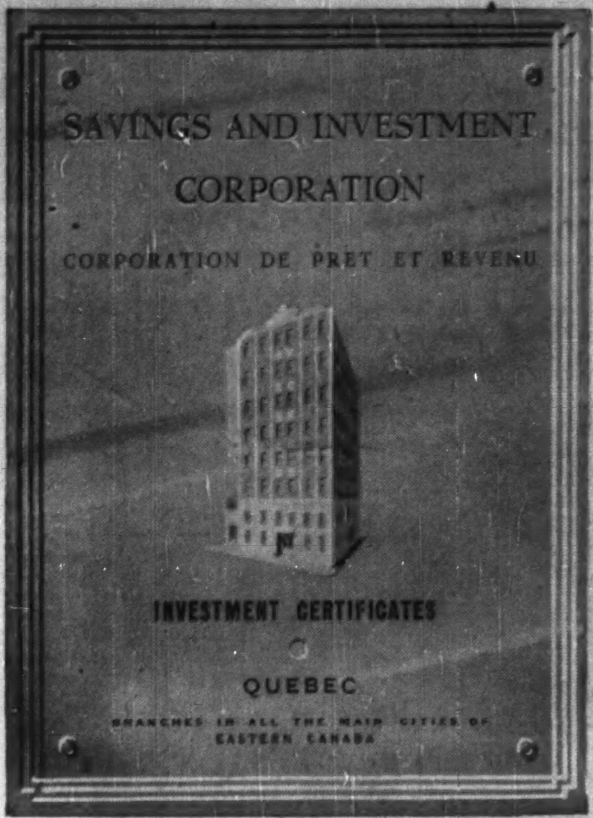

A Bright, Well-planned Office Is The Key To Bigger Profits

By CLIFFORD FOWKE

It's good business to spend money on quality office furnishings. It's an investment in prestige and creates an atmosphere of success and confidence.

That's the line now being taken by Canada's most progressive companies in keeping with the current trend to modern office buildings in good location, of stylish architecture with full air-conditioning and other facilities. They believe it's uneconomic as well as illogical to build a $10-million office structure and then skimp on its furnishings.

About $200 million worth of new office buildings went up across Canada last year. It's expected that the figure this year will be greater. And into most of this new accommodation goes the best that craftsmen and good taste can produce. Oil companies, major manufacturing firms, insurance companies, banks and other fields in most of our larger cities have followed the trend.

It has brought a new wave of prosperity to top interior designers, to specialist craftsmen who work in one-room workshops on handcraft products, and to internationally known furniture and textile firms in this country and abroad.

Many of the new major offices have been furnished to individual design, and the rate of spending on them has depended very largely on how firm is the conviction of management that prestige and an aura of prosperity are assets of high value, if intangible in their returns.

What Decides Cost

The cost of furnishing a boardroom can range from $5,000 to $20,000, according to ideas and size, and from $4,000 to $10,000 for a reception room, according to its purpose as well as other things.

What makes the difference? It could be in the quality of the carpet ranging in price from $20 a yard to as much as $80 a yard for the handwoven Donegal article from Northern Ireland. It could also lie in the executive desk costing from $500 up to $1,500 for a solid mahogany item with handwrought brass handles such as might be specially shipped from a famous house in the U. K.

Some of the difference would also be in the drop lighting fixtures according to whether they were fairly normal at $15 apiece or were specially ordered at $600 to $700 each for the type in hand brasswork usually associated with Finland.

There could also be considerable cost variation in the drapes, like the $7.50 a yard antique satin from a North American mill or the $15-a-yard hand-printed linen of original design that is produced by exclusive, painstaking specialist craftsmen in several Canadian cities.

Facilities often concealed behind that dignified paneling in the board or reception rooms are other things which can influence the cost. Many boardrooms and reception rooms fulfill several purposes besides the obvious one. They are planned for relaxation, entertainment or overnight accommodation on the side with television, Hi-Fi or radio behind the panels and dining rooms off.

How The Job Starts

How does the job of designing the interior of a quality executive suite start? It isn't just a matter of calling up a furniture store and ordering from a catalogue.

Robert Dirstein of the Toronto interior design firm of **Robert Dirstein & Partners,** who has just completed the nine-month task of designing and furnishing special areas of the new, six-story Traders Building in Toronto, says: "An effective designing job must have intelligent collaboration between the client, the architects and the designer."

Recently the Traders Building had an official opening ceremony at which several hundred guests had the first opportunity to admire the latest example of custom office interior design, planned specially for the requirements of **Canadian General Securities Ltd., Traders Finance Corp.,** and eight subsidiary and associate concerns. Designing office interiors to meet their needs in the varied financing, insurance and other fields which they cover was a complex task.

It began around last October when the building was in the early stages of construction under the guidance of architects **Marani & Morris.**

That was when planning of lighting fixtures, outlets, panelling, wall and tile colors and as many other details as possible was worked out with architects. From a series of meetings and discussions with the company executives involved, a tentative scheme was drawn up.

This was developed to the point where ideas could be translated into colored sketches with plans showing placement of furniture, and swatches of suggested fabrics, carpeting, wall colors, etc.

Cost estimates followed, and then the ordering and specifying of items, and the preparation of working drawings of special furniture.

Over 100 Suppliers

Dirstein, who designed most of the furniture for these offices, reports that goods and services from well over a hundred sources were purchased for Traders Building.

Chenille carpet for presidential and other executive offices and reception and board rooms came from **James Templeton & Co.,** Glasgow, Scotland, where it was woven to specified room sizes and specially dyed to colors selected by the designer.

Boris Kroll, a weaver of fine textures in New York, made the silk and woolen striped materials for lounge chair upholstery, and woolen damasks for the boardroom and presidential office were imported from **Arthur H. Lee,** Birkenhead, U.K. The sun curtains for the entire buildings were specially woven of linen in Belgium.

Draperies for executives offices were purchased from **Morton Sundour Canada Ltd.** and some were designed and printed in Toronto by **Farquhar & Son.**

Furniture of a Sheraton theme in board and reception rooms was designed to requirements in deep-toned, heart-figured mahogany to combine with lighter, hand-finished mahogany panelling. Frames for the board chairs were handmade by a talented Toronto craftsman in a small second-story workshop, and upholstered in antique top grain leather from **Lackawanna Leather Co.,** Toronto. Some of the furniture is trimmed with gold leaf and topped with marble.

Early Canadian Prints

While searching for finishing details of his scheme, the designer visited New York where he obtained a fine collection of early Canadian prints that now hang in various reception areas of Traders Building.

Among them is "Sleigh Scene on Toronto Bay" by **Day & Sons** dated 1853 and maps of Upper and Lower Canada dated 1843. These have been finished with ivory matts and gold-leafed frames.

A pair of antique Italian finials, wood carvings with a gold leaf finish, were mounted on two-inch marble slabs and made into lamps for the executive reception room. Chinese bronze beakers have had similar treatment and now serve as lamps in the boardroom.

U. S.-woven silk for the curtains in A. E. Naylor's (he is chairman of the board and president of Traders Finance Corp.) office was provided by **Scalamandre Silks** in New York, and frames for the Sheraton tub chairs were made in New York and upholstered in apricot top grain leather and finished in Canada. Bronze and crystal ash trays from **George Jensen,** and an 18th century carved marble falcon of the Yung Cheng Dynasty complete Mr. Naylor's office.

Raw Indian silk hangs in the office of W. F. Spry, of **Canadian General Insurance Co.** together with Scotch linen and woolen tweed upholsteries from **Knoll International Canada Ltd.** Orange-enamelled ash trays by **Lois Hetherington** of Toronto and a T'ang horse were the finishing touches here.

Most imported goods were ordered from agents in Toronto, Montreal and New York, and some directly from sources on file.

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Provinces Say Yes To Safety Tests While Ottawa Says No

A campaign started in 1955 for safety tests of imported electrical equipment has now received endorsement from all provinces except Newfoundland.

But the federal legislation needed to enforce the tests seems still as remote as ever to the sponsors of the campaign — the Canadian Lamp and Fixture Manufacturers' Association.

Ottawa still says no.

Originally, agreement by all provinces was set down as a prior stipulation by the then Trade and Commerce Minister C. D. Howe.

With that requisite all but achieved (Newfoundland's endorsement must await the establishment of an inspection authority there) Howe informed CLFMA that: "The Federal Government does not have the machinery to reject imports on the grounds that they will not pass inspection in certain provinces.

"Nor would it be appropriate for the Federal Government to pass laws which deal with such matters."

The letter concludes with the observation that "no practical means have so far been found" to implement the tests on imports.

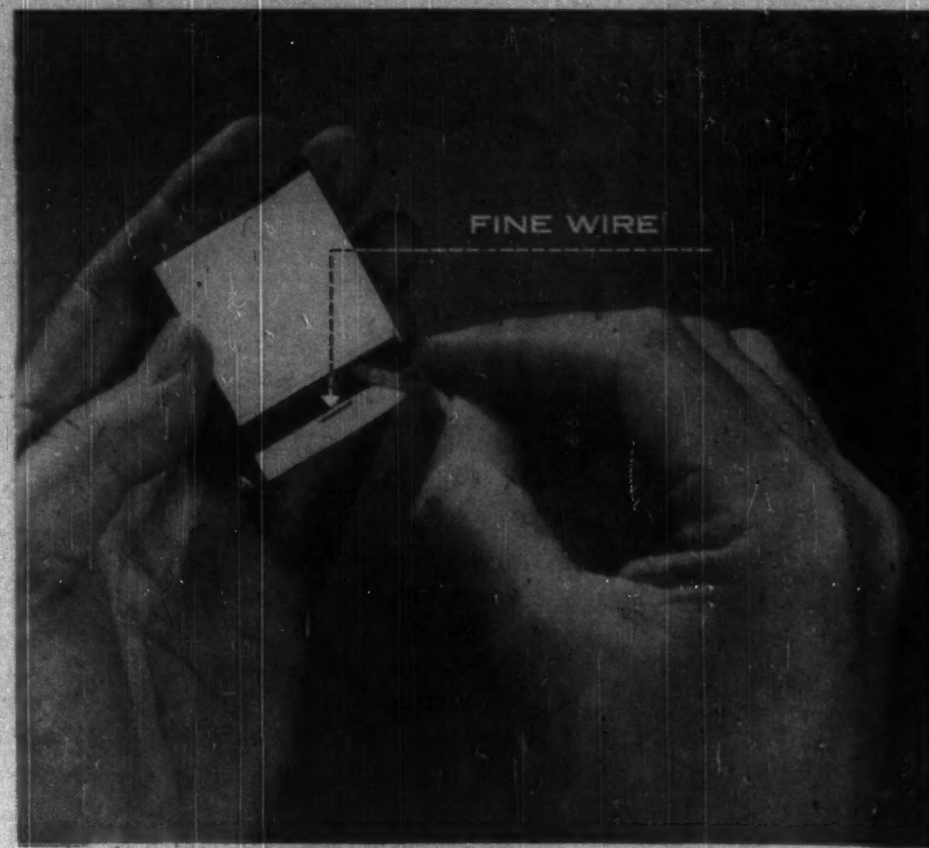
The association and some provinces have expressed the opinion that the problem could be solved through the co-operation of the Federal Customs department.

All electrical equipment entering the country could be reported to provincial inspection authorities who could then test the goods according to the code of the Canadian Standards Association.

The factor of public safety is being used by the CLFMA to bolster its demand for inspection of imports. Advertisements have pointed out that $55 million in fire losses in Canada during the past five years has been "directly attributable to defective wiring circuits and the use of substandard, unapproved electrical equipment such as appliances, portable lamps, lighting fixtures."

At the moment, the provincial inspectors have no means of determining sources of inferior products other than chance or, literally, by accident.

Recently, the CLFMA reports, a lamp purchased at a department store exploded immediately upon being plugged into a socket in the woman shopper's home. The woman notified the provincial inspection department which obtained other lamps from the store. Tests showed the model had seven defects.



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Stelco Fine Wire is produced with a variety of finishes — bright, liquor, coppered, galvanized, and tinned — for products such as pipe cleaners, staples, bobby pins, brushes, florists' displays, cables, spiral binding, and paper clips.

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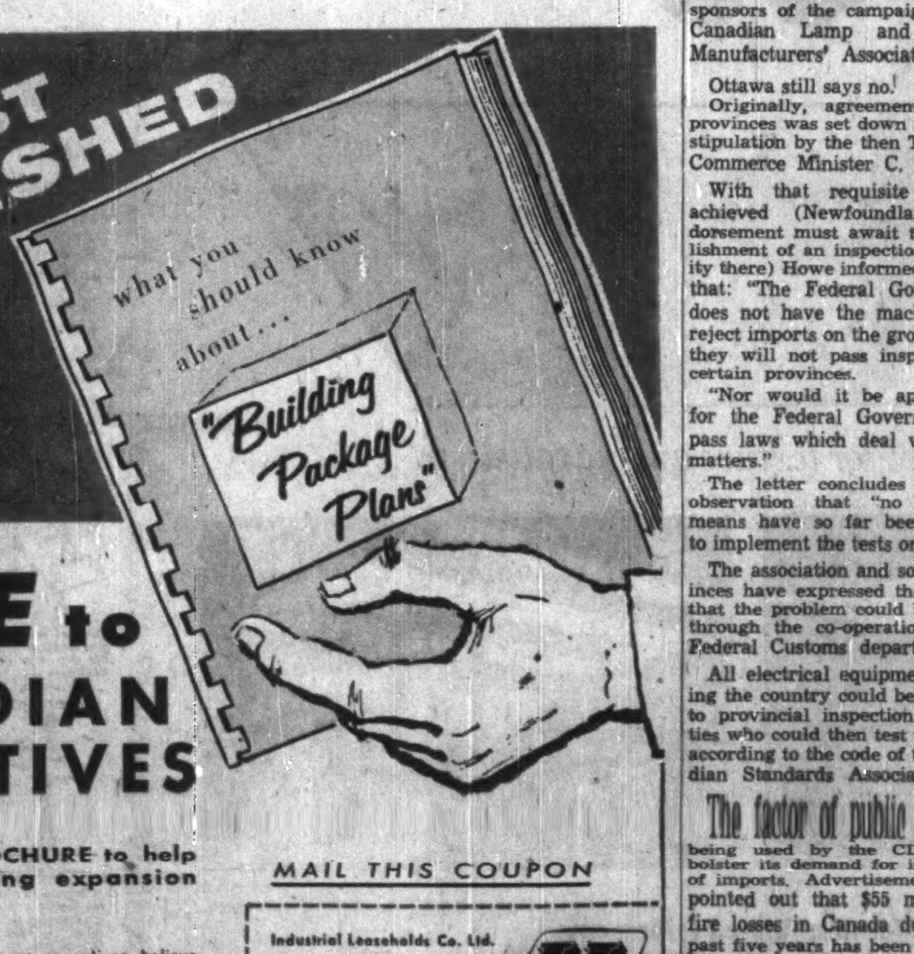

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ALBERTA: Calgary—Foothills Aviation, Ltd. Edmonton—Gateway Aviation Ltd. • BRITISH COLUMBIA: Vancouver—West Coast Air Services Ltd.

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Prices, Supply Now Varied Report Purchasing Agents

The supply position and prices for a wide variety of materials have changed substantially in the last four weeks.

A report prepared recently by the Canadian Association of Purchasing Agents shows the following position for a number of selected materials:

Industrial Chemicals. A drop in activity in steel and some other industries has reduced demand for industrial acids; supply of glycerine is adequate in spite of a strike at the plant of one producer; weakness in non-ferrous metal markets indicates a probable price drop in some metal salts.

Construction Materials. Supply situation is good in the Montreal area. Structural steel and plate, except for H-berms, have eased slightly. In Toronto area all building materials are readily available except for structural steel. Prices on all plaster and lime products were increased slightly by manufacturers, effective May 10.

Containers. Market continues weak in jute and burlap; demand for Multiwall paper bags continues heavy with prices firm and deliveries good. Converter prices for plastics have settled down after a period of adjustment due to decreases on some types, and increases on other types of films.

Electrical Materials. Conduit and conduit fittings are in good supply at present in Central Ontario where demand has fallen off considerably. Prices are expected to be steady.

Wiring supplies and wire such as used in homes are in good supply because of inactivity in the building line. Prices are firm and delivery good.

Food. Beef market on the Prairies continues firm with little or no movements due to the stock being put out to pasture rather than to market. Red and blue grades of beef are considered the best buy at the moment.

Veal should soon appear in good supply but may be slightly dearer. The price of pork products is at an all time high and it does not appear that this will subside until late summer, if at all.

Processed pork, such as bacon and hams, is in large demand and stocks not too plentiful. Little or no lambs available. One source reports butchered lambs from the U. S. to be selling as high as 70c lb. To ensure supply it would seem wise to buy in quantity in October and pay storage.

Reports that the Cuban sugar crop is larger than anticipated have reflected in a drop in the price of raw sugar. The present trend of raw, if maintained, will likely result in lower prices for refined sugar.

Natural Gas. This is fast becoming a reality in Winnipeg with distribution promised for early fall. Information is that a number of large year-round manufacturing companies, presently using bunker oil, have signed gas contracts.

This will no doubt release a substantial gallonage of bunker for other markets but oil companies will not use the word "surplus" as they claim to have markets for every gallon replaced by natural gas.

Ferrous Metals. Steel buyers in the U. S. market area are faced with the problem of low inventories versus the scheduled increase in steel prices in July. Opinions concerning the increase vary from $4 to $9 ton.

Structurals and wide plates are still holding fairly strong in the U. S. but automobile industry and appliance companies are maintaining low inventories. However, because of these low inventories, a pickup in either of these major industries would have an immediate effect at the mill level.

The U. K. finds home demand still impressively buoyant and may not be able to maintain the rate of export established in the first quarter especially as the auto trade is reviving.

The Eastern Canada scrap market continues more attractive than its U. S. counterpart with Canadian mills at full capacity compared with 85%-90% operating rate in the U. S.

While there does not appear to be any excessive stocks in dealer's hands sufficient scrap is appearing on the market to meet the demands. Most consumers appear to have adequate inventories at the present time, but current price levels should prevail.

Any reduction in demand could easily create an oversupply situation.

Paint and Varnish. There has been little doubt that the huge crop and prospective crop of linseed oil would soften this market. This has now been borne out as flaxseed dropped again in May approximately 25c bu., whereas December came on the board at close to $2.50 bu. The question now confronting buyers is how far this drop will go.

Paper. There is pressure on the paper mills as material costs and wage rates have continued to rise since the last increase of June 1956.

Consolidated Smelters To Pay 35c Extra

MONTREAL (Staff) — **Consolidated Mining & Smelting Co. of Canada** has declared its regular semiannual dividend of 40c together with an extra of 35c, payable July 15 to shareholders of record June 14.

While the regular dividend is unchanged, the extra is 5c lower than paid in the second half of last year. This January, company paid the regular dividend plus an extra of 40c, the same as in the second half of 1956.

COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Mining

KILEMBE COPPER COBALT had a net loss of $328,018 from 1956 operations which began in June when the mill first went into production.

During the tune-up period, production of copper concentrates did not reach anticipated levels, President A. J. Anderson reports. As a result, unit costs per ton were abnormally high.

Unit costs were reduced to the original estimates after the mill reached full rated capacity in November, and modest operating profits were shown in the last part of the year, he states.

While blister copper is being produced, Kilembe will not immediately move toward cobalt treatment, Mr. Anderson says.

The world market for cobalt metal is being studied but, until marketing conditions improve, the company will not proceed with building its proposed cobalt leaching plant.

Cobalt values in the ore are being stock-piled in the form of pyrite concentrates.

A debenture redemption plan has been set up by the company to ensure adequate funds for retirement of long-term indebtedness. This plan will start Dec. 31, 1957, and will end Dec. 31, 1962, under which the full $4.9 million will be set aside, Mr. Anderson says.

CONSOL. INCOME ACCOUNT

Year Ended Dec. 31:	1956
Production rev.	$312,419
Less: Oper. exps.	1,112,778
Oper. earnings	▲300,359
Less: Deprec.	339,103
Preprod., dev., etc., w/o	192,270
Interest	94,290
Loss	826,018
Less: Minority share	291,949
Deficit	534,069
▲Loss.	
Earned per Share	▲$0.253

CONS. CONDENSED BALANCE SHEET

As at Dec. 31:	1956	1955
Cash	$402,118	$3,822,728
Treasury bills	713,808	1,266,446
Accts. rec.	81,738	100,228
Concentrates	812,419	
Supplies	1,143,850	†1,283,184
Total curr. assets	3,153,933	6,472,586
Deposit: deb. int.	375,531	
Deferred chgs.	388,676	429,783
Preprod., dev., etc., exps.†	7,383,945	6,480,866
Mining props.‡	467,784	479,778
Plant & equip.*	10,926,543	
Total assets	22,696,412	21,704,803
Total curr. liabs.	1,496,163	1,209,686
Funded debt	9,214,266	6,626,628
Minority int., subsid.	4,389,765	4,109,802
Capital stock	2,504,810	2,209,464
Contrib. surp.	5,731,475	5,247,184
▲After w/o of	108,278	
‡After w/o of	11,994	
*After deprec. of	485,414	
Working capital	1,663,768	5,263,586

OPERATING STATISTICS

	1956
Tons milled	193,695
Average recovery	$4.19
Ore reserves, tons	17,619,000
Grade: Copper, %	2.11
Cobalt, %	0.16

Oil Company

WESTERN DECALTA PETROLEUM plans to concentrate on a stepped-up program of acquisition and development of proven and semiproven properties in order to increase the cash throw-off for participation in exploration areas, President Charles S. Lee reports.

The $6-million U.K. capital infusion will permit the company to expand its development drilling, land acquisition and exploration drilling programs, he says.

Although cash will be available from the company's own funds, Decalta will continue to solicit management contracts and partnerships such as the one with **Petrol Oil & Gas** in order to distribute costs and risks, Mr. Lee says.

The company and its subsidiaries participated directly or indirectly during the year in 29 development oil wells and 12 exploratory wells.

Net sales in the year amounted to $1,042,926, with management fees raising total revenue to over $1.2 million.

This revenue represents only nine months of operations by subsidiaries which were consolidated into Decalta during the year.

It also represents only part of the expected annual revenue from eight oil wells in Pembina, two in Rimbey and three in Joffre which were drilled and placed on production toward the end of the year.

CONSOLIDATED BALANCE SHEET

As at Dec. 31:	1956	1955
Cash	$3,119,593	$230,357
Accts. etc., rec.	473,160	242,361
Invent	129,256	68,853
Total curr. assets	3,722,009	541,571
Prepaid exps.‡	6,379	
Deposits	87,730	43,223
Invest. in & advs. to assoc. co.	93,206	92,386
Misc. assets	112,776	340,110
Oil lands & roy.*	7,540,706	7,390,352
Undevel. leases	476,728	
Well costs††	1,827,118	1,599,748
Prod. equip.†	950,951	709,540
Total assets	14,787,623	10,717,632
Due bank		556,588
Install. pay.	120,500	85,979
Accts., etc., pay.	606,978	293,158
Total curr. liabs.	727,478	937,725
Bank loan		1,307,600
Funded debt	8,119,500	3,740,500
Min. int.	234,336	605,525
Capital stock	4,177,435	3,621,761
Cap. surplus	2,177,829	1,303,922
Deficit	648,955	
*After depl. of	700,404	
††After amort. of	195,642	
†After deprec. of	169,738	247,582
‡Incl. in curr. assets in co.'s accounts.		
▲Pro forma.		
Working capital	2,994,531	1394,154
‡Excess of curr. liabs. over curr. assets.		

LOCHABER OIL CORP. had a net profit of $39,156 in 1956, an increase of around 77% from net profit of $22,042 in 1955.

Gross income rose sharply over the previous year due largely to interest received from a wholly owned subsidiary, **Frontier Oil & Gas**, on mortgage bonds held by Lochaber, President W. A. Arbuckle reports.

INCOME ACCOUNT

Years Ended Dec. 31:	1956	1955
Net income	$99,955	$73,643
Less: Gen. & admin. exps.	35,741	37,183
Depletion	14,058	13,256
Income taxes	2,000	1,162
Net profit	39,156	$22,042

CONDENSED BALANCE SHEET

As at Dec. 31:	1956	1955
Cash	$21,409	$1,073
Accts. rec.	10,314	10,725
Mkt. sec.*	845,199	777,526
Total curr. assets	876,922	789,324
Inv. in & adv. to subs.	552,087	552,087
Oil royalties†	359,458	373,516
Other invests.	39,642	39,642
Total assets	1,828,109	1,754,569
Total curr. liabs.	17,433	7,558
Reserves	542,076	644,563
Capital stock	1,236,141	1,06,434
Earned surplus	37,459	6,014
*Mkt. value	1,070,013	858,668
†After depl. of	154,394	140,336
Working capital	864,489	781,766

Manufacturing

VICEROY MANUFACTURING CO., Toronto, net profit of $161,369 for year ended Feb. 28, 1957, was 28.7% less than previous fiscal year's $226,372.

While sales were approximately the same, substantially higher costs resulted in lower profits than previous year, says President D. Lorne Pratt.

Expansion program was completed toward year's end with installation of new powerhouse at the Dupont plant.

Production costs, reflecting use of improved equipment and processes, are substantially lower than a year ago, the president says.

INCOME ACCOUNT

Years Ended Feb. 28:	1957	1956
Net earnings	*$370,243	*$409,081
Less: Deprec.	91,689	81,585
Bond interest	30,205	22,614
Inc. tax res.	56,000	62,500
Net profit	†$161,369	†$226,372
Less: Cl. A divd.	134,444	134,444
Com. divd.		47,277
Surplus for year	26,925	54,651

*Incl. trans. fr. tax pd. cont. res. $90,000 in 1957; $30,000 in 1956.
†Co. shows net profit of $165,369 in 1957 and $230,372 in 1956 including proceeds of life insurance of $4,000 in 1957 and $3,000 in 1956.

Times Bond Interest Earned:		
Before deprec.	6.25	12.54
After deprec.	4.71	10.04
Earnings per Share and Dividend Record:		
Cl. A: Earned†	$0.65	$0.91
Earned‡	0.50	0.50
Paid	0.50	0.50
Cl. B. Earned†	0.16	0.43
Earned‡	0.16	0.43
Paid:		0.20

†Before ()after) taking participating feature into consideration.

Shares o/s at Feb. 28:		
Class A	248,886	248,886
Class B	236,384	236,384

CONDENSED BALANCE SHEET

As at Feb. 28:	1957	1956
Cash	$8,240	$31,789
Accts. rec. less res.	476,177	469,432
Life insur., c.s.v.	29,849	28,951
Inventories	1,349,858	1,340,035
Inc. tax recov.	23,185	23,000
S.T. coll. trust note		250,000
Total curr. assets	1,884,319	2,942,260
Misc. assets	50,942	42,440
Fixed assets	3,471,730	3,101,307
Total assets	5,406,991	5,185,939
Bank loan	340,000	
Accts., etc., pay.	433,407	399,960
Res. for taxes	3,009	3,854
Mtge. bond due	50,000	50,000
Total curr. liab.	826,416	453,814
Funded debt	1,400,000	1,450,000
Deprec. res.	1,820,943	1,729,449
Conting. res.		90,000
Res. for fut. taxes	56,000	
Capital stock	344,867	344,867
Capital surplus	200,062	200,062
Earned surplus	858,583	817,858
Working capital	1,057,903	1,388,389

Construction

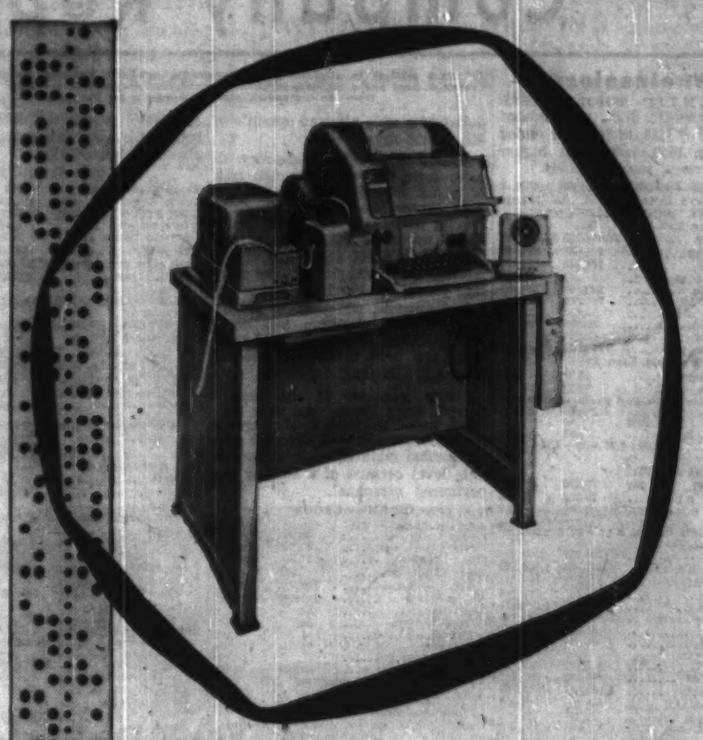
GRAHAM BELL LTD., Streetsville, Ont., net profit of $3,213 for year ended Sept. 30, 1956, was 86.3% less than previous fiscal year's $23,391.

CONDENSED INCOME ACCOUNT

Years Ended Sept. 30:	1956	1955
Sales	$1,951,898	$1,833,723
Net earnings	4,304	34,391
Taxes	1,091	11,000
Net profit & surplus	3,213	23,391
Earnings per Share and Dividend Record:		
Common: Earned	$0.01	$0.08
None paid.		
Shares o/s at Sept. 30:		
Common, 20c par	300,009	300,009

CONDENSED BALANCE SHEET

As at Sept. 30:	1956	1955
Cash	$450	39,166
Accts. rec.	227,593	231,770
C.s.v., life insur.	5,414	4,949
Inventories	422,206	327,938
Total curr. assets	755,965	574,325
Prep. exp.‡	7,278	5,369
Fixed assets*	466,241	425,451
Def. chgs.	21,677	
Total assets	1,251,161	1,005,145
Due bank	282,608	123,000
Accts., etc., pay.	304,583	189,388
Taxes pay.		11,000
Total curr. liabs.	587,191	322,388
Notes pay.	200,000	225,000
Capital stock	60,002	60,002
Capital surplus	393,974	393,974
Earned surplus	5,094	1,881
†After deprec. of	125,742	81,754
▲After res. of	4,906	4,402
‡Incl. in curr. assets in co.'s report.		
Working capital	168,774	251,937



IDP*

IDP is based on the modern mechanical languages that are common to or compatible with various business machinery. The punch tape shown here is such a common language — it can actuate many different types of business machines.

*Integrated Data Processing is a method of mechanizing business paperwork so that a single typing can be used over and over again. The resultant labor savings can be substantial. In addition, "paperwork lag" is cut down and accuracy is improved, since the reproduced data will always be identical.

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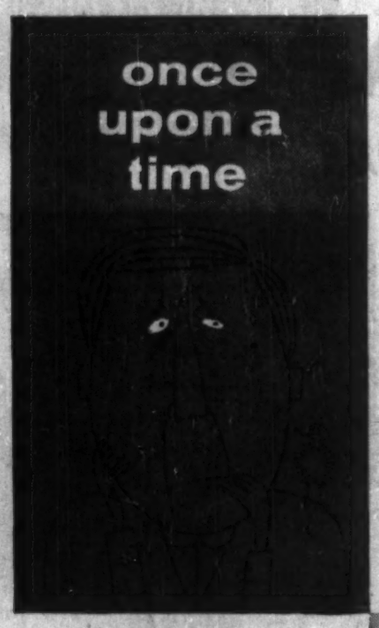
THE BELL TELEPHONE COMPANY OF CANADA



Once upon a time there was a hotel manager who worried all day long.

• • •

And often far into the night.

* A Worry Bird

He didn't worry about all the things that a hotel manager generally worries about.

• • •

He didn't have time.

Because this hotel manager specialized in worrying about the high cost of elevator service.

• • •

And that can be a full-time job.

You see, he never could forget that when he figured--

elevator operators' wages $.....
and vacation pay $.....
and insurance $.....
and social security $.....
and uniforms $.....
AND cleaning and all the other little extras $.....
--that it added up to $$$$$$$$$$$.....
well it added up to an awful lot*

*Some estimates run as high as $16,000 per year per car.

• • •

Why not total up your own costs?

Discouraged, but not defeated--he thought and thought about the answer to his elevator problem.

• • •

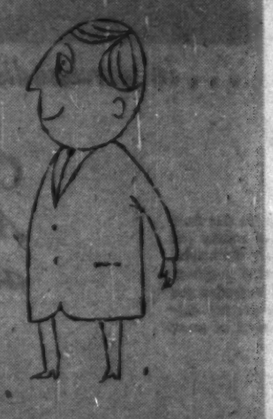
Suddenly inspired, he put in a call for help.

Naturally, he called the local Otis office.

And as soon as he mentioned the high cost of elevator operation, the Otis man made a sound and sensible suggestion. He said:

"Why not let your guests operate your elevators?"

And the Otis man explained how easy this was when you had completely automatic AUTOTRONIC® elevators.



And a great light dawned on the hotel manager and he realized that all his elevator worries were over ...

... and that now he could spend all his time worrying about all the other things a hotel manager generally worries about.*

*At the latest count there were 2867 items on the Official Worry Check List for Hotel Managers.

• • •

But, thanks to Otis, elevators aren't one of them.

an invitation

Why don't you call your local Otis man and see what Autotronic elevators can do for you?

Otis autotronic®
completely automatic elevators

Otis modernization
that maintains a hotel's prestige

OTIS ELEVATOR COMPANY LIMITED • HEAD OFFICE AND WORKS: HAMILTON, ONTARIO • OFFICES IN 28 CITIES ACROSS CANADA

Company Reports

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Wholesalers

ATLANTIC WHOLESALERS LTD., Sackville, N.B., consolidated net profit of $259,864 for year ended March 31, 1957, was 13.9% higher than previous year's $228,244.

Earnings and dollar sales were a record, says President E. A. Dixon.

CONS. INCOME ACCOUNT

Years Ended Mar. 31:	1957	1956
Gross profit	$2,181,745	$2,013,906
Net earnings	404,639	381,984
Less: Depr.	103,542	105,404
Bd. int. & amort.	37,537	40,607
Est. taxes	263,559	127,729
Net profit	259,864	228,244
Less: Pref. divds.	19,531	23,129
Cl. A divds.	60,000	56,250
Cl. B divds.	6,000	5,625
Surplus for year	174,333	143,240
Times Int. & Amort. Earned:		
Before deprec.	14.07	13.84
After deprec.	13.35	11.34
Earnings per Share and Dividend Record:		
Preferred	$15.95	$11.07
Paid	1.10	1.10
Cl. A & B	2.91	2.49
Paid	0.60+0.20	0.55+0.20+stk.*
*$1.00 par stk.		
Shares o/s at Mar. 31:		
5½% pref., $50 par	16,296	20,614
Class A, n.p.v.	75,000	75,000
Class B, n.p.v.	7,500	7,500

CONDENSED CONS. BALANCE SHEET

As at Mar. 31:	1957	1956
Cash	$206,457	$367,996
Accts. rec., less res.	1,947,143	1,606,583
Due from subsid.	523,375	467,151
Mkt. sec.‡	5,019	15,893
Inventories	1,997,684	1,719,573
Total curr. assets	3,649,628	3,597,196
Prep. exp.‡	51,189	51,844
Misc. assets	48,877	99,270
Inv. in subsid. (at cost)	392,435	499,035
Fixed assets*	680,622	761,802
Total assets	4,969,581	5,008,949
Bank loans, etc.	504,000	720,000
Accr. bd. int.	27,585	30,535
Accts. pay., etc.	1,464,085	1,340,962
Total curr. liabs.	1,995,670	1,969,417
Funded debt	1,239,749	1,341,662
Capital stock	738,670	635,030
Earned surplus†	1,025,492	852,619
*After depr. of	600,529	562,811
‡Included in curr. assets in co.'s report.		
†After deducting $182,818 distribution of accumulated surplus earned prior to Jan. 1, 1940, of subsidiary company.		
§Including $12,000 in 1956 par value of the company's bonds.		
Working capital	1,653,958	1,627,581
Contingent liabilities—Endorsements and guarantees amounted to $199,326 as at Mar. 31, 1957		

Textiles

LONDON HOSIERY MILLS, London, Ont., net profit of $80,637 for year ended March 31, 1957, was 46.1% higher than previous year's $55,183.

Imports of hosiery continued to depress prices but, through introduction of new styles and purchase of new machinery, company was able to increase sales, says President J. A. McKeeman.

Number of directors was increased from five to six.

All arrears of Class A dividends have been paid and prospects for future earnings appear to be "quite encouraging," says the president. Dividend of $1.50 per common share was paid last June.

INCOME ACCOUNT

Years Ended Mar. 31:	1957	1956
Net earnings	$178,759	$126,108
Less: Deprec.	23,113	19,585
Inc. taxes	75,000	51,100
Net profit	80,637	55,183
Less: C. A divds.	45,000	54,000
Comm. divds.	120,000	
Surplus for year	▲84,363	(1,183
▲Deficit.		

Note — Co.'s report in 1956 shows net profit of $86,183 including profit on sale of investments; and $53,991 in 1957 after loss on disposal of investments.

Earnings per Share and Record:		
Class A	$1.79	$1.33
Paid	0.60+0.20*	0.80+0.40*
Common	0.56	0.54
Paid	1.50	...
*On arrears.		
Shs. o/s Mar. 31:		
Class A	45,000	45,000
Common	80,000	80,000

CONDENSED BALANCE SHEET

As at Mar. 31:	1957	1956
Cash & Dom. bds.	$111,709	$230,645
Accts., etc., rec.	216,529	181,016
Life ins. c.s.v.	12,436	10,776
Inventories	320,610	279,144
Total curr. assets	661,274	701,581
Prep. exp.‡	12,439	12,040
Invests.	...	36,000
Fixed assets*	110,765	104,994
Total assets	784,478	854,615
Accts. tax., etc., p.	110,892	63,423
Divd. pay.	9,000	18,000
Total curr. liabs.	119,892	81,423
Capital stock	125,000	125,000
Earned surplus	539,586	648,192
*After depr. of	422,250	404,238
‡Incl. in curr. assets in co's report.		
Working capital	541,382	620,158

Public Utilities

ELK CREEK WATERWORKS CO., Vancouver, net profit of $39,975 for 1956 was 5.8% higher than 1955's $37,792.

Revenue and net earnings were a record, says President B. H. Gunning.

Company in 1956 acquired the Lihumitson Creek storage basin, which will be available when required. Company's present water supply is adequate for normal requirements for several more years.

Capacity of the Little Mountain reservoir is to be increased from one million gallons to 2.5 million gallons, and to be made of concrete. To provide the $25,000 needed, shareholders are being offered rights to buy, at $3 per share, one additional common share for each 10 shares now held.

INCOME ACCOUNT

Years Ended Dec. 31:	1956	1955
Gross revenue	$176,362	$170,817
Net earnings	122,943	118,607
Less: Deprec.	33,850	32,830
Bond int.	20,942	21,498
Bd. exp. w/o	1,455	1,468
Income tax	26,612	24,839
Net profit	39,975	37,792
Less: Divids.	15,000	10,000
Surplus	24,975	27,972
Times Bond Interest Earned:		
Before deprec.	5.87	5.52
After deprec.	4.35	3.99
Earnings per Share and Dividend Record:		
Common	$0.40	$0.38
Paid	0.15	0.10

CONDENSED BALANCE SHEET

As at Dec. 31:	1956	1955
Cash	$10,647	$16,742
Accts. rec.	3,161	3,693
Inventories	41,256	27,372
Total curr. assets	55,064	47,807
Prepaid exp.‡	252	963
Cash with trustee	2,374	10,374
Misc. assets	16,800	16,725
Fixed assets*	869,121	845,036
Total assets	943,306	921,105
Total curr. liabs.	27,055	24,997
Def. inc. tax	32,800	15,300
Construct. contrib.	7,703	7,417
Funded debt	457,000	462,000
Capital stock	116,792	116,792
Capital surplus	106,030	106,030
Earned surplus	206,354	181,579
*After depr. of	410,250	398,204
‡Included in curr. assets in co.'s report.		
Working capital	28,009	22,809

Mining

SAN ANTONIO GOLD MINES had a net profit of $62,028 equal to 3c a share in 1956, down from net profit of $115,550 equal to 5c a share the previous year.

Since the rake and dip of the favorable greenstone formation is trending into the Forty-Four mine ground, more ore will be developed there than at San Antonio, President J. D. Perrin says.

Eventually, bulk of production will likely come from the Forty-Four as positive San Antonio reserves continue to decline, he says.

Shortage of labor is blamed for the decrease in reserves since it was not possible to carry out necessary development work.

Higher labor and material costs and the premium on the Canadian dollar adversely affected operations, Mr. Perrin says.

Should it ever be necessary to close down the mine—through lack of a higher gold price or greater help under the Emergency Gold Mining Assistance Act — the mine might never be opened again because of its great depth and deterioration of underground and surface plant, Mr. Perrin says.

San Antonio, which spent $21,671 on outside exploration last year, will continue its search for a new mine and will investigate several prospects this year.

Labor turnover of the underground crew during the year was 195%, Mine Manager C. F. Caswell reports. At no time in the year was production maintained at a reasonable level because of a lack of experienced personnel.

INCOME ACCOUNT

Years Ended Dec. 31:	1956	1955
Gross production	*$759,078	$1,097,557
Less: Oper. exp.	766,153	885,190
Oper. income	▲7,075	212,367
Add: Other inc.	7,909	6,143
Est. Cost-Aid	106,720	26,275
Net earnings	107,554	244,885
Less: Deprec.	22,366	29,229
Outside expl.	21,671	118,786
Def. devel. w/o	1,499	1,320
Net profit	62,018	115,550
Less: Dividends	...	143,582
Surplus for year	62,018	▲28,032
*After deducting unstated marketing costs.		
‡Loss or deficit.		
Earned per Share and Dividend Record:		
Common	$0.03	$0.05
Paid	nil	0.06
Shares Outstanding as at Dec. 31:		
Common, $1 par	2,393,034	2,393,034

CONDENSED BALANCE SHEET

As at Dec. 31:	1956	1955
Cash	$346,221	$476,964
Bullion	101,418	133,818
Dom. bonds*	75,000	75,000
Accts., etc., rec.	46,236	32,055
Supplies	272,379	306,562
Est. Cost-Aid	52,049	21,260
Total curr. assets	1,005,301	1,045,779
Prep. exps.‡	21,558	17,936
Invests. & advances	1,045,578	1,027,751
Plant & bldgs.▲	57,405	69,864
Mining props.	1,878,609	1,878,609
Def. dev., less w/o	12,548	...
Total assets	4,119,999	4,049,939
Total curr. liabs.	68,956	83,668
Capital stock	2,393,118	2,393,118
Earned surplus	1,648,925	1,573,215
▲After depr. of	2,115,166	2,083,453
*Market val. of	72,562	72,825
‡Incl. in curr. assets in co.'s report.		
Working capital	1,606,345	972,171

OPERATING STATISTICS

	1956	1955
Tons milled	103,777	125,399
Average recovery	$37.32	$8.75
Ore reserves, tons	250,000	200,000
‡After deducting unstated marketing costs.		

HOYLE MINING had a net profit of $31,198 in 1956 compared with a net loss of $10,978 in 1955.

Activities in the year were confined to directing operation of **Consolidated Sudbury Basin Mines** and **Consolidated Mosher Mines**, maintaining interests in various associated companies and geological work in various mining areas, President J. M. Cunningham-Dunlop reports.

Additional shares of Consolidated Sudbury were purchased during the year and since, bringing the holdings to 1.9 million shares or 26.17% interest.

Holdings in Consolidated Mosher were also increased, with Hoyle now holding 812,925 shares equal to an interest of about 25.2%.

Near the end of 1956, 13,167 redeemable preference shares were bought for cancellation, leaving 26,333 shares outstanding.

INCOME ACCOUNT

Years Ended Dec. 31:	1956	1955
Divds. & int., etc., rec.	$91,721	$40,133
Less: Admin., etc. exp.	48,201	26,057
Interest exp.	3,943	14,478
Income taxes	2,304	...
Net profit	31,198	▲10,978
Less: New pref. divds.	227,125	†134,596
Deficit	195,927	145,574
▲Loss		
†Represents arrears paid on old pref. shs.		

SPECIAL SURPLUS ACCOUNT

Years Ended Dec. 31:	1956	1955
Net prof., sec. sale	$27,857	$219,207
Less: Net loss, f.a. sale	44,506	8,100
Sundry write-offs	140,702	26,108
Costs re pref sh. iss.	...	202,187
Deficit	187,353	28,188

CONDENSED BALANCE SHEET

As at Dec. 31:	1956	1955
Cash	$405,050	$2,302,983
Bds. & short-term notes	...	1,997,500
Accts., etc., rec.	15,960	31,813
Supplies	1	19,481
Total curr. assets	421,011	4,351,777
Invests.:		
Subsids.	115,950	44,341
Assoc. & oth.‡	7,701,252	5,146,693
Advances	130,219	133,646
Misc. assets	...	9,193
Deferred dev.	204,212	204,212
Outside expend.	91,180	89,958
Mining prop.	399,266	399,266
Bldgs. & equip., etc.	92,738	145,093
Total assets	9,155,926	10,526,378
Total curr. liabs.	4,591	5,323
Capital stock	10,072,880	11,389,229
Less: Deficit	921,554	868,274
▲After depr. of	112,672	117,738
§Market value	...	1,997,000
‡Market value	33,474,534	30,514,616
▲After w/o	...	507,529
Working capital*	416,420	4,646,454
*Excluding investments.		

Containers

DOMINION CONTAINERS LTD., Montreal, consolidated net profit of $575,958 for 1956 was 77.3% higher than 1955's $324,921.

Increase in sales, more efficient manufacturing operations, development of new products and effective sales promotional efforts increased profits, says President C. N. Moisan, Jr.

Capital expenditure for machinery and equipment was $309,281, and company is committed to expenditures for machinery in 1957 to amount of $250,000.

CONSOL. INCOME ACCOUNT

Years Ended Dec. 31:	1956	1955
Net earnings	$1,339,501	$903,248
Less: Deprec.	236,887	216,549
Bd. & deb. int.	36,787	40,715
Income tax	467,869	321,063
Net profit	575,958	324,921
Less: Com. divds.	20,769	20,769
Surplus for year	555,189	304,152
Times Funded Debt Interest Earned:		
Before deprec.	36.41	22.18
After deprec.	21.92	16.87
Earnings per Share and Dividend Record:		
Common: Earned	$5.55	$3.13
Paid	0.20	0.20
Shares o/s at Dec. 31:		
Common, n.p.v.	103,847	103,847

CONDENSED CONS. BALANCE SHEET

As at Dec. 31:	1956	1955
Cash & mkt. sec.	$120,182	$239,692
Accts., etc., rec., less res.	1,345,095	1,109,781
Short-term notes	148,856	...
Inventories	1,194,781	863,846
Total curr. assets	2,768,914	2,212,319
Mortgage rec.	85,000	85,000
Investments	326,000	435,000
Prep. exp.‡	47,051	29,303
Fixed assets*	1,816,960	1,749,923
Total assets	5,053,925	4,511,545
Accts., tax., etc., p.	1,035,643	995,436
Bonds due	25,000	25,000
Total curr. liabs.	1,060,643	1,020,436
Funded debt	766,700	843,700
Capital stock	519,235	519,235
Earned surplus	2,697,347	2,128,174
*After depr. of	1,136,761	1,635,014
‡Incl. in curr. assets in co.'s report.		
Working capital	1,648,271	1,191,883

Stationers

GRAND & TOY LTD., Toronto, net profit of $159,727 for year ended March 31, 1957, was 17.2% higher than previous fiscal year's $136,250.

INCOME ACCOUNT

Years Ended Mar. 31:	1957	1956
Net earnings	$426,453	$307,428
Less: Tax res.	139,585	98,253
Depreciation	106,718	80,952
Interest	20,412	...
Net profit	159,727	136,250
Less: Divds.	32,298	32,264
Surplus for year	127,429	103,986
Earnings per Share and Dividend Record:		
Earned	$6.82	$5.91
Paid	1.00+0.40	1.00+0.40
Shares o/s at Mar. 31:		
Common	23,070	23,070

CONDENSED BALANCE SHEET

As at Mar. 31:	1957	1956
Cash	$34,033	$36,167
Accts. rec.	627,759	580,151
Inventories	935,720	915,721
C.s.v., life insur.†	18,439	16,389
Total curr. assets	1,617,951	1,548,428
Prepaid exp.‡	14,176	21,349
Fixed assets*	686,746	686,313
Total assets	2,318,873	2,456,090
Due bank	...	15,372
Accts., tax., etc., pay.	475,749	539,090
Income taxes pay.	98,000	27,000
Total curr. liab.	573,749	611,462
Deferred liabs.	375,000	400,000
Capital stock	230,700	230,700
Earned surplus	1,339,424	1,213,928
*After depr. of	523,150	437,996
‡Incl. in curr. assets in co.'s report.		
†Not included in curr. assets in co.'s report.		
Working capital	1,044,202	936,966

Merchandising

LOUNSBURY CO., Newcastle, N.B., net profit of $673,479 for 1956 was 19.3% higher than 1955's $564,596.

CONDENSED INCOME ACCOUNT

Years Ended Dec. 31:	1956	1955
	$	$
Sales	11,908,315	11,482,979
Net earnings	1,384,251	1,180,792
Less: Deprec. & res.	105,905	137,244
Income tax	584,867	446,953
Net profit	673,479	544,596
Less: Divds.	101,419	101,409
Surplus	572,060	443,187
Earnings per Share and Dividend Record:		
Cl. A: Earned*	$6.32	$5.30
Earned‡	0.70	0.70
Paid	0.50+0.20	0.50+0.20
Cl. B: Earned‡	15.59	12.77
Paid	0.50+0.20	0.50+0.20
*Before (‡after) participation.		
Shares o/s at Dec. 31:		
Class A, n.p.v.	106,490	106,490
Class B, n.p.v.	38,430	38,380

CONDENSED BALANCE SHEET

As at Dec. 31:	1956	1955
Cash	$109,920	$146,903
Accts. rec.	4,349,346	3,951,753
Inventories	1,541,849	1,188,482
Total curr. assets	6,001,115	5,287,148
Investments	34,010	34,010
Def. chgs.	12,960	16,474
Fixed assets	960,277	734,538
Total assets	6,998,326	6,982,169
Bank loan	950,000	800,000
Accts., tax., etc., pay.	1,008,291	1,020,616
Divds. pay.	25,984	25,974
Total curr. liabs.	1,987,275	1,849,590
Capital stock	488,030	468,280
Capital surplus	700,000	700,000
Earned surplus	3,842,057	3,344,290
Working capital	4,013,840	3,437,558

Bank Staff Changes

Commerce:

J. A. BAIRD, assistant accountant, Fort William, Ont., to be accountant, Lloydminster, Sask.

P. F. G. BINETTE, to be accountant, Cowansville, Que.

W. J. FAWCETT, accountant, Saskatoon, Sask., to be assistant manager, Portage & Garry, Winnipeg.

MISS L. GERTH, to be assistant accountant, Lethbridge, Alta.

R. A. HALDANE, assistant accountant, Whitehorse, Y.T., to be accountant.

W. P. McCREADIE, to be assistant accountant, Brockville, Ont.

D. R. MacLENNAN, to be assistant accountant, Fort William, Ont.

F. H. NEAVE, to be assistant accountant, Whitehorse, Y.T.

E. E. PERRY, assistant accountant, Lethbridge, Alta., to be an assistant accountant, Edmonton, Alta.

R. RICHES, accountant, Lloydminster, Sask., to be accountant, Saskatoon, Sask.

L. S. C. WILSON, an audit officer, Regional Inspection Dept., Montreal, to be an organization officer, Methods & Organization Dept.

Montreal:

A. J. F. PEEL, manager, Broadway & Main St., Vancouver, to be manager, Marine Building, Vancouver.

W. A. SKOOG, manager, Delhi, Ont., to be assistant supt., Man. & Sask. Districts.

A. S. C. BLACK, manager, Prince George, B.C., to be assistant manager, Winnipeg main office.

M. F. NICKERSON, assistant manager, Saint John, N.B., to be manager, New Glasgow, N.S.

E. M. S. JOHNSON, supt.'s dept., Halifax, to be assistant manager, Saint John, N.B.

R. F. GUTHRIE, head office, to be an assistant manager, New Westminster, B.C.

J. R. HARFORD, inspector, head office, to be manager, Broadway & Main St., Vancouver.

J. P. DRAKE, manager, Fourth Ave. & Wellington St., Verdun, Que., to be manager, Beatty & Verdun Aves., Verdun.

J. G. L. E. MAGNAN, manager, Ville LaSalle, Que., to be manager, Fourth Ave. & Wellington St., Verdun.

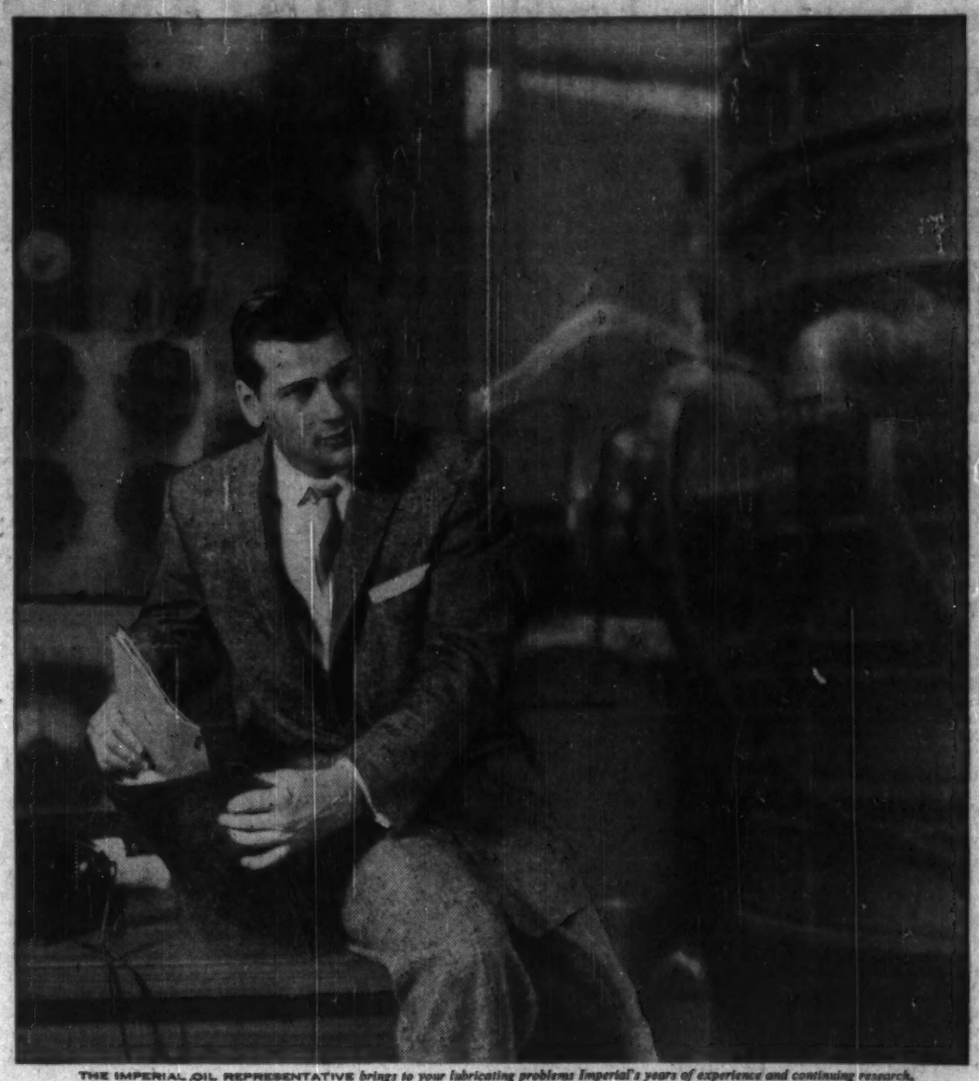
W. F. B. HENRY, head office, to be manager, Ville LaSalle.

H. W. STEEL, manager, Prince Rupert, B.C., to be manager, Prince George, B.C.

T. C. MELVILLE, assistant manager, Carrall & Hastings Sts., Vancouver, to be manager, Prince Rupert.

J. H. THOMSON, head office, to be assistant manager, Carrall & Hastings Sts., Vancouver.

J. DOUGLAS manager, Morris, Man., to be manager, Kamsack, Sask.



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IMPERIAL ESSO PRODUCTS

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WHO SAID DIRT CHEAP?

Air-borne dirt costs business countless millions

. . . in redecorating

. . . in merchandise mark-downs

. . . in lost man-hours

. . . in cleaning

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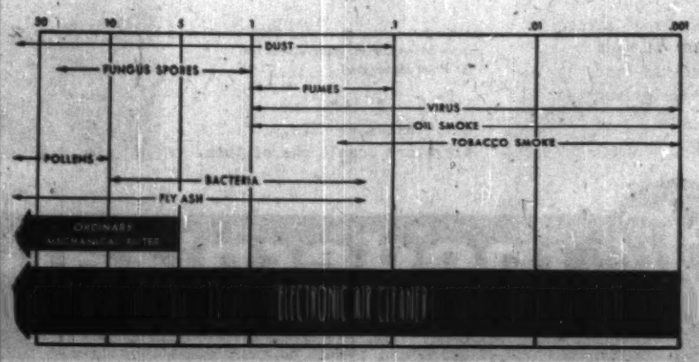
As shown below, common air-borne contaminants range in size from 50 to .001 microns. In this area are the major causes of soiling and many respiratory ills. It should be noted that the ordinary mechanical filter removes only part of these contaminants—for practical purposes, very little under 5 microns. But notice the wide range of protection you get with a Honeywell Electronic Air Cleaner. Here you get not only the removal of large coarse particles, but microscopic carriers of many other kinds of dirt and disease, as well.



Cut air-borne dirt losses with the New Electronic Air Cleaner—from Honeywell, the leader in automatic controls for air conditioning . . .

The Electronic Air Cleaner is the most recent addition to Honeywell's world-famous line of products for the control of year-round air conditioning.

With its introduction, Honeywell's reputation for quality and dependability becomes identified with the most efficient method commercially available for ridding the air of costly air-borne dirt.

Freedom from this scourge means a bigger profit margin than ordinary mechanical filters can provide.

Whatever your business, you'll realize substantial new savings in reducing cleaning and decorating costs, and lost man-hours. These, plus other savings, will more than pay for the initial installation of a Honeywell Electronic Air Cleaner.

Your architect or engineer will be glad to discuss the advantages of a Honeywell Electronic Air Cleaner for your building, or if you prefer write to Honeywell, Toronto 17, Ontario.

Honeywell

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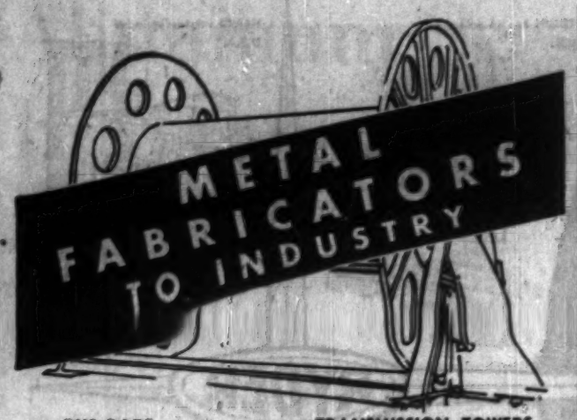
For any size building—

All Honeywell Electronic Air Cleaners are built around this basic cell that permits easy, fast "building-block" construction to fit any air system—supermarket to skyscraper. The "building-block" technique has another distinct advantage too—it offers easier servicing.



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To Be Successful in Business You Must Have Good Memory

A good memory is a valuable, sometimes priceless, asset in business.

Some people have them, some haven't. Why?

Doctors and psychologists say: A good memory is made, not born. People have good memories because they cultivate them.

Here are some suggestions on how to go about cultivating yours.

By ERNEST W. FAIR

"Who is that fellow anyway? I'm sure I should know him!"

"What the dickens were those exact figures on that Anderson deal last year?"

"We had a case like this two years ago—what did it cost us anyway?"

These are typical questions which every executive alive at one time or other asks himself. One of the big things we would all like to possess is a better memory for business details, faces and information—it can mean dollars and cents to us!

Building a better business memory is not a complicated proposition, say psychologists, doctors and a good many executives known for their sharp ability at memory.

Good business memory is something more than just the ability to recall things; some individuals are experts at calling to mind top golf scores, wives' birthdays, baseball batting averages and other data—yet have difficulty exercising a business memory.

Here, from a study of a large number of recommended systems, is the advice of the experts:

Start using your brain power. The average person uses only 25% of his brain power. He expects memory to be an automatic function. It isn't! It must be developed, exercised and striven for.

Actually trying harder to remember — using that dormant brain power we seldom touch—is one of the most important steps we can take.

"It's no use my trying to remember anything—I just can't," is oftener than not the alibi of the individual who expects memory to be something ready and willing to go to work within his brain.

Actually there is no separate compartment of the brain which does the memory function; it's an overall feature which must be developed by ourselves and the big first step is putting to use that big 75% of our brain we seldom use.

Wheat from Chaff

Another frequently recommended good step is to learn to separate the worthwhile business things from the worthless, insofar as our effort to remember is concerned.

A good way to clutter up the whole process is to overtax our capacity for remembering by trying to store away everything connected with our business. We always make it much more difficult when we put extra strain on the process by trying to remember the worthless things.

Think carefully about the things you wish to remember. Impress yourself with them and their importance. You have to try to remember or little will be accomplished.

This requires real concentration at the time we decide the information concerned is worthwhile to store in our memory. Give it real concentration and remembering will always come easier.

Concentration on the important business details we select for memorizing is of great importance. The whole thing takes no more than a moment or two and possibly a supplemental bit of concentration one or two times later in the day.

Attitude is of vital importance. The way we look at the various experiences connected with our business can have much to do with our ability to remember for future use things about each of those business experiences.

If our attitude toward them is negative remembering will become a real king-size job. It is always easiest to remember the things that are pleasant; the business experiences we enjoy. Pleasant experiences, everyone tells us, tend to be better remembered. It is a certain experience with every reader of these pages.

Making more of the things we do in our business pleasant ones will always help toward a good memory. A different attitude toward every phase of our work and business can be of certain assistance.

Imagination helps business memory. That's one reason we can remember things concerned with sports, romance, hobbies, etc., much easier than our business experiences.

We enjoy them immensely; live them over and over again and in almost every instance put our imagination to work on them long after they have been experienced.

We can do the same thing with business facts and experiences. Thinking about them pleasantly afterwards—re-interpreting what happened — imagining different approaches to the problem than were taken — "seeing" and "hearing" these business experiences, can help any executive build a better business memory.

Review in Detail

It always pays to review immediately the things we wish to impress on our memory.

Thinking them over completely and in detail two or three times after they have been first experienced will implant them deeper in memory.

This is probably the one biggest aid to better memory—used by most business men. Some employ tricks and devices like word associations, but they are more or less glamourizations of the simple act of review.

About the trick systems. Yes, business men tell us, they do work sometimes.

It's about an even judgment on them—some have had success with such systems and some have not. Their greatest value is in that they actually put us to work at trying to remember.

One should not try to remember too many things. We should give the important ones a chance to soak in and not try to clutter up our memory with every minute detail of each business day.

It's also a very good idea to alternate between dissimilar subjects because a long procession of similar material is difficult for even the sharpest business mind to remember.

Work At It

The reader will gather by this time that memory is a process we have to work at; nothing like it just comes automatically.

Memory has to be practised, developed and we have to make a deliberate effort to place in the memory file something we believe may be of use to us some time in the future.

Many executives also find that their over all memory function works much better when they leave details such as dates, and figures to memos and their office filing systems.

Such things are easily confused and an effort to keep them separated in the mind may often lead to false memory which can be worse than none at all. Many executives use such things as tickler files on their desks to house data and figures.

Making certain what you wish to remember is clearly understood. The mind tends to reject anything it finds confusing or about which it is uncertain.

A special effort to clear up uncertain or misunderstood points covering anything one wishes to remember will nearly always result in a more satisfactory memorization.

Many studies and practical experiences have shown that it is much easier for us to memorize details before bedtime than at any other period of the day.

Experts are not certain why but since they know that memory works best when the mind has no outside interference this is probably due to the fact that we have about eight hours of relaxed sleep right after the planned effort to put something into our memory at this particular time.

Alcohol, the experts say, is a block to memory. Coffee, tea and cola drinks in moderation, on the other hand, appear to help memory.

One of the most widely used tricks employed by business men wanting to remember definite facts is to tie the process in with something standard and fixed in their minds—things such as the height of the tallest building in the city. Other figures are memorized in relation to the favored object.

Ernest W. Fair is a veteran business writer who frequently appears in FP.

U. S. Watch Makers Form Canada Firm

Hamilton Watch Co., Lancaster, Pa., has announced plans to form a Canadian subsidiary, **Hamilton Watch Co. of Canada**, with headquarters in Toronto.

General manager and a director of the new company will be John Badger of Scarborough, Ont.

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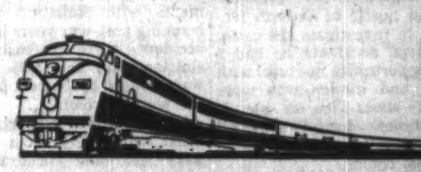

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DONALD ROPES AND WIRE CLOTH LIMITED
HAMILTON * CANADA

Sole Canadian licensee for Talurit wire rope mechanical splice.

MANUFACTURER OF WIRE ROPE AND CABLE • PERFORATED METAL SCREENS • WOVEN WIRE SCREENS • INDUSTRIAL WIRE CLOTH.

Contracts Hit Billion In Plant, Office Boom

Construction contract awards hit the $1 billion mark for the first time this year at the end of last month, according to Hugh C. MacLean Building Reports.

Work for industrial and business purposes was comfortably ahead of the same 1956 period but residential and engineering awards were lagging.

Presently, the spotlight is on the business category which includes commercial and institutional building.

Last month, with contracts for new office construction hitting the high spots, it was the one section to maintain a lead over the previous year's record high figures, though industrial building, thanks to a spurt earlier this year, is well ahead on the cumulative period.

Residential contracts show little sign of approaching 1956 levels. They were 44.7% behind at the end of the five-month period and 43.7% down last month.

The other laggard, engineering, fell off again from 1956 last month but expectations persist that its pace will speed up later. Meanwhile, the carryover of work from last year is keeping most contractors busy.

The Western region, which includes the Prairie provinces and British Columbia, was up $20.7 million in construction contract awards in the first five months of this year for which the total was $313.4 million.

The Maritimes, down just on $1 million on the five months, scored in everything but residential building last month.

Ontario, behind by $29.4 million on the cumulative period, recorded gains in industrial and engineering work last month. Quebec contracts up to May this year are off 46.7% with business the only category that showed a gain last month.

Canada's two biggest metropolitan areas—Toronto and Montreal—are both behind last year, with residential the big loser in Toronto (50% off) and industrial work the only category ahead in Montreal.

Here are the contract award totals for the first five months of this year:

	Jan.-May 1957 ($ Mill.)	% Change '56/'57
Residential	258.3	—44.7
Business	300.4	+9.9
Industrial	238.6	+29.7
Engineering	252.9	—15.5
Total	1,050.3	—14.1

Source: Hugh C. MacLean Building Reports.

INDUSTRIAL RELATIONS

"Labor Roundup"—another Post exclusive—reports on the practical side of industrial relations week by week. Keep yourself in touch with the trend of union activity. Read The Financial Post.

Yearly by mail in Canada $8; elsewhere $7 yearly.

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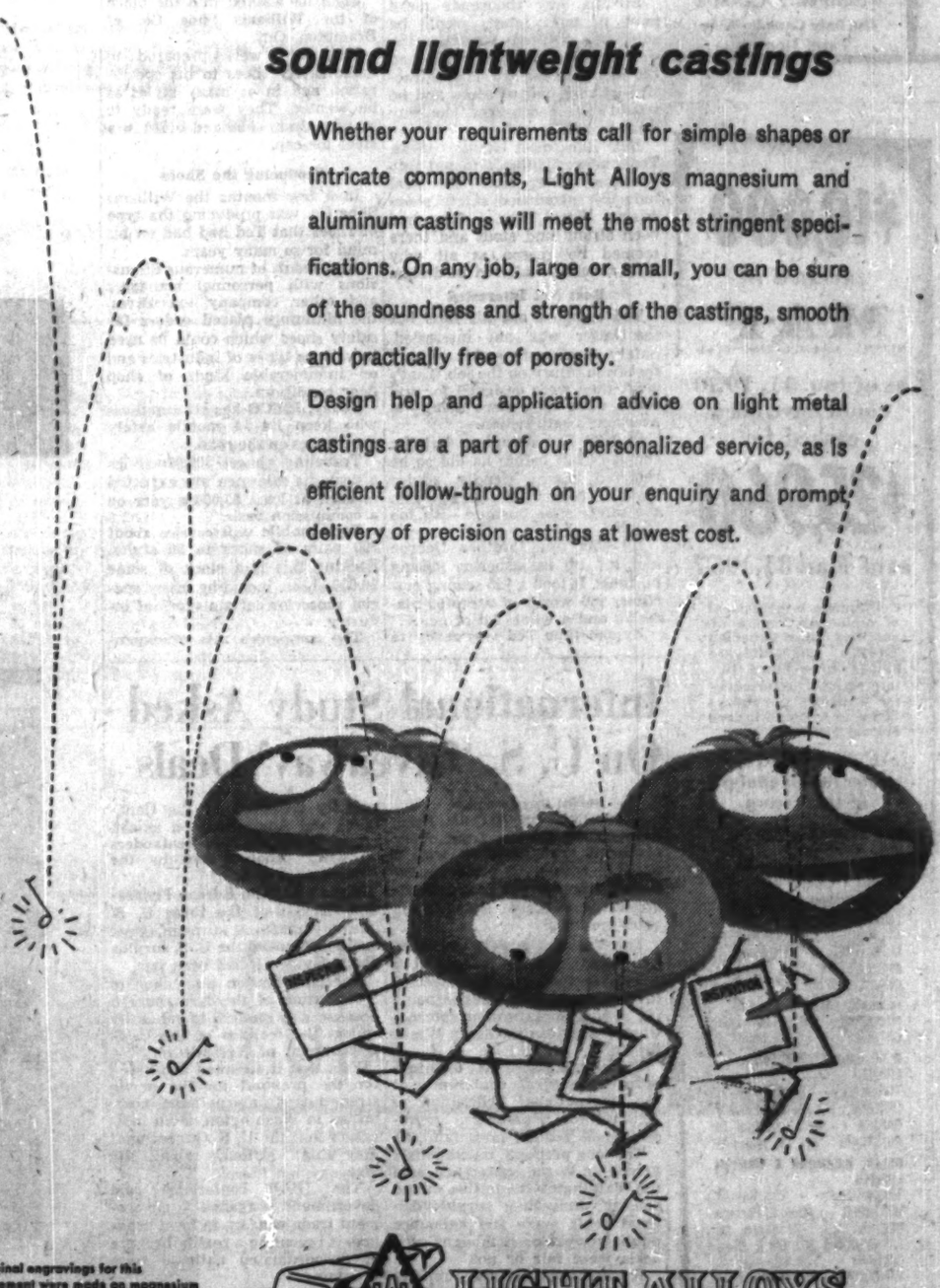
Design help and application advice on light metal castings are a part of our personalized service, as is efficient follow-through on your enquiry and prompt delivery of precision castings at lowest cost.



The original engravings for this advertisement were made on magnesium

LAL LIGHT ALLOYS
LIMITED
320 Bay Street, Toronto, Ontario

ANNOUNCEMENT

NEW SECRETARY-TREASURER

LAURENT TESSIER

J. Raoul Bourassa, President of Noe Bourassa Ltd., makers of La Belle, Fermiere meat products announces that Laurent Tessier was appointed Secretary-Treasurer of the Company, at a recent board meeting. Mr. Tessier has been with the Company since 1935, holding various positions, earlier as Credit Manager and in recent years, as Office Manager.

The Munnings Turned Safety Into a Big Paying Business

By RAYMOND VARELA

Twenty-five years ago, Ted Munnings took one look at a pair of industrial safety shoes, and groaned.

They were shapeless items of footwear in only two styles, Oxford or boot, black or brown.

In the toe of these shoes there was a steel cap designed to protect the worker should anything fall onto his feet.

Today, Ted is general manager of the **Industrial Safety Equipment Co.** which supplies 35% of all safety shoes worn in Canada's industrial workshops, and has a yearly turnover approaching $1 million.

ISECO, as the company is called in the trade, is wholly owned and operated by one family.

George, a boisterous extrovert who breeds Herefords at his Orangeville farm as a hobby, is president.

Father Ed Munnings, a close relative of Sir Alfred Munnings, the painter, is vice-president.

Bob, who once served in the RCN as an executive officer, is secretary-treasurer.

Vic is the company's chief accountant; he also acts as the family's unofficial genealogist.

During a trip to Chicago a few years ago Vic discovered that a member of the Munnings family served under King Henry V at the Battle of Agincourt.

When Mr. Munnings senior lost his business during the depression, Ted and George managed to secure a job with **Imperial Optical Co.**

George became interested in leather-work and worked in the company's safety clothing department, while Ted began to learn the intricacies of the lens grinding business.

Later, Ted joined the **Safety Supply Co.**, one of the many subsidiaries of Imperial Optical, and it was here he became acquainted with safety shoes for the first time.

Golden Opportunity

When the company had occasion to send him out into the whirl and hustle of Ontario factory life to investigate the cause of industrial accidents, he had a golden opportunity to talk with the men and women who wore the safety shoes then on sale.

The retailers of safety shoes all sold the same type, there was no alternative choice.

Then Ted came up with what he calls his Number One Idea.

Even he admits it wasn't particularly original, but no one in the safety shoe business had given much thought to it before.

And it was simple: Why not make safety shoes in a wide variety of styles, grains and colors so that the worker could wear them in the evenings as dress shoes?

In this way thousands more pairs of safety shoes would be sold with resultant benefit to the shoe retailer and the worker on the job. Give the latter an attractive-looking pair of shoes and he would be encouraged to buy built-in safety.

But like most simple ideas, Ted's proved difficult to put into operation. Ever since the steel industry introduced safety shoes during World War I they had been strong and stout and there seemed no reason at all why they should be altered in design.

Boss Not Interested

Ted sounded out his boss but the latter was not interested. Safety shoes were meant to save feet from injury on the job. That's what they were designed for and that's what they were doing—to everyone's satisfaction.

In 1939 Ted Munnings left the company but before he did so he received some friendly advice from his boss: "Don't ever go into the safety shoe business—it's too tough."

By this time brother George had set up an asbestos suiting business. It took a $45 sewing machine, $60 worth of asbestos material, and a whole lot of nerve.

By the time Ted was ready to leave the **Safety Supply Co.** his brother had weathered a number of financial storms and was doing quite well for himself.

Around this time however, Hitler was moving into Poland, so Ted forgot about safety shoes and joined the RCAF and served as a member of the aeronautical inspection directorate.

In 1945 he began thinking again about safety shoes and methods of merchandising.

It was then the practice of industrial organizations of any size to buy in large stocks of safety shoes for their employees and to store them in a service crib in the plant.

This practice (and some companies still operate this way) raised serious inventory and storage problems and after hearing about some of these, Ted came up with his Number Two Idea:

Why should the company waste valuable floor space storing safety shoes if it was possible to deliver them whenever required?

Thus was born the idea of mobile safety shoe stores—shops on wheels.

Bought a Trailer

Ted and George bought a second-hand trailer and fitted it up with shelves, then stocked it with safety shoes.

They made their first call on industry in April 1948. In three hours they fitted out 68 employees of a Hamilton motor assembly plant, proving that Number Two Idea would work.

But there was still a big selling job to do on top management and if it wasn't done in a hurry Ted and George knew they would be out of business in no time flat.

Employees who wanted safety shoes were fitted out in their own time and there was no such thing as a payroll deduction plan.

These facts threatened the Munning livelihood almost before they had got started.

George, a born public relations man, made the rounds of all the big companies and outlined a procedure for selling safety shoes to employees. He backed his arguments with statistics; in those booming post-war years industrial accidents were increasing at a sinister rate, and 30% of them were caused by objects falling on the workers' feet.

Why not allow employees to be fitted with safety shoes on company time and encourage their use by introducing the payroll deduction system?

Top management listened.

Concurrently with George's selling job, Ted resurrected Number One Idea; an attractive-looking safety shoe that no one would be ashamed to wear after work.

He approached a number of shoe companies but at best they registered only mild interest.

Then he walked into the office of the **Williams Shoe Co.** of Brampton, Ont.

Yes, they were prepared to make safety shoes to his specification and in as many styles as he wanted. They were ready to make a dress shoe and build in a steel toe-cap.

Producing the Shoes

In a few months the Williams Shoe Co. was producing the type of shoes that Ted had had on his mind for so many years.

As a result of numerous discussions with personnel managers and other company executives, the Munnings placed orders for safety shoes which could be used in various types of industries and on innumerable kinds of shop floor conditions.

Today, ISECO has six suppliers who keep its 14 mobile safety shoe stores on the road.

Traveling almost 500,000 miles a year, its salesmen are expected to earn at least $5,000 a year on a commission basis.

Each mobile unit carries about 700 pairs of shoes in 50 styles. Backing this is a stock of some 30,000 shoes, including many special shoes for certain types of industry.

The company's rate of expansion has been steady at 20% per year, and with the future in mind, it is adding 10,000 sq. ft. of floor space to its Toronto headquarters.

It serves the giants of Canadian industry with safety shoes; such organizations as **General Motors, Aluminum Co. of Canada, Dominion Bridge, CNR and CPR, CIL,** have all found it good business to "buy" safety for their employees by allowing them to buy the shoes through the payroll deduction plan.

Needn't Hide Them

The safety shoe is no longer (thanks in large measure to the Munnings family) an item of footwear to be hidden at the end of the shift.

Men and women are wearing them for "best" and think nothing of it. They come in a bewildering variety of styles, sizes, and colors and they are easy on the feet in more senses than one.

Applied pressure to the steel toe-cap averages 2,000 psi without distortion, and pressures of 6,800 psi have been applied with only 1/16 in. deflection on the cap.

Accident prevention statistics compiled by the company indicate that the steel-capped safety shoe has reduced the number of foot injuries by almost 90%.

Recently ISECO opened a new centre of operations — in Winnipeg.

This year the company expects to sell some 75,000 pairs of safety shoes.

U.K. Dron Plan Seen Answer To Inflation

By DONALD R. GORDON

LONDON—A hustling London merchant's scheme to boost business and battle inflation offers some useful tips for Canadian businessmen, plus a possible source of low-cost quality merchandise.

The man is H. Imrie Swainston, chairman of the wholesaling firm of **John Dron Ltd.**, and originator of the Dron Plan to halt inflation.

His method:

1. Mass buying for a hoped for total of 200,000 to 300,000 mail order customers of basic household commodities for sale at rock-bottom prices.

2. Provision of these goods to smaller retail outlets, enabling them to match and even undersell their larger competitors.

3. Introduction of "Optimum Specification."

The results so far have been startling. "I was prompted to introduce this plan by the then Chancellor of the Exchequer, Harold Macmillan's speech on the need of positive action being taken against inflation," Swainston told **FP**.

"My conviction is that there is enough margin in the over-all manufacture and distributive structure to provide more than 10% reduction in the price of basic commodities, thus making a positive move against inflation.

"What we have done specifically is to make available our research, mass production and bulk purchase facilities used by some 7,000 hotel, school, and other institutional clients, to the general public.

"Since we started some eight weeks ago, with a quarter page newspaper advertisement, we have received firm orders from hundreds of individuals and enquiries in the thousands."

For Canadians the scheme offers interesting possibilities:

—A source of basic goods such as sheets, towels and other textiles (with packages of foods, brushes and other household goods planned).

—Free testing facilities, representing pre-research being undertaken to test the goods.

"We are most interested in tying up with really live Canadian organizations with facilities for them to work with us," Swainston said.

"We could put at their disposal the results of some five years research, plus of course those commodities which could be sold competitively in Canada even if transportation costs were added."

"Optimum Specifications" is Swainston's term to describe the standards system that is being used.

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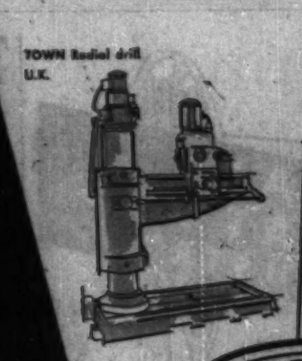

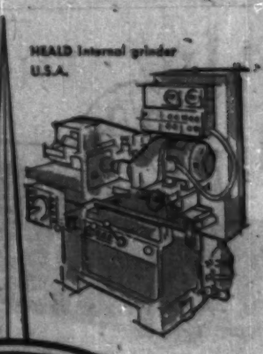

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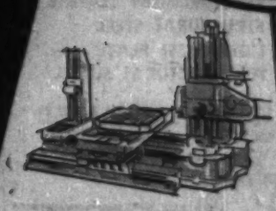

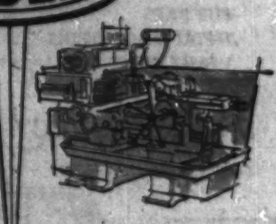

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International Study Asked On U. S. 'Giveaway' Deals

Special Correspondence

WASHINGTON, D.C. — Farm organization leaders from every continent have come up with a possible answer to problems resulting from government-against-government trade warfare in farm products.

The answer, largely provided by Canadian farm leaders at a world farm organization meeting here this past week, lies in pouring new strength into an international committee sitting in Washington.

The meeting here was the ninth ordinary general conference of the International Federation of Agricultural Producers, representing 35 million farm families.

The new proposal, unanimously agreed on at the conference, said the Washington committee should consider individual surplus disposal deals made and announce publicly whether it thought such deals were fair or not.

It was hoped that the publicity would deter governments from making objectionable surplus disposal deals.

The new proposal came after 10 days of debate, largely centring on U. S. surplus disposal deals.

These "special deals" were roundly criticized by the Canadians and Australians on wheat, by the Dutch and New Zealanders on dairy products and by the Mexicans on cotton.

The U. S. Farm Bureau Federation, largest of the three U. S. farm organizations at the meeting, stoutly defended the U. S. surplus deals, saying all had been fair.

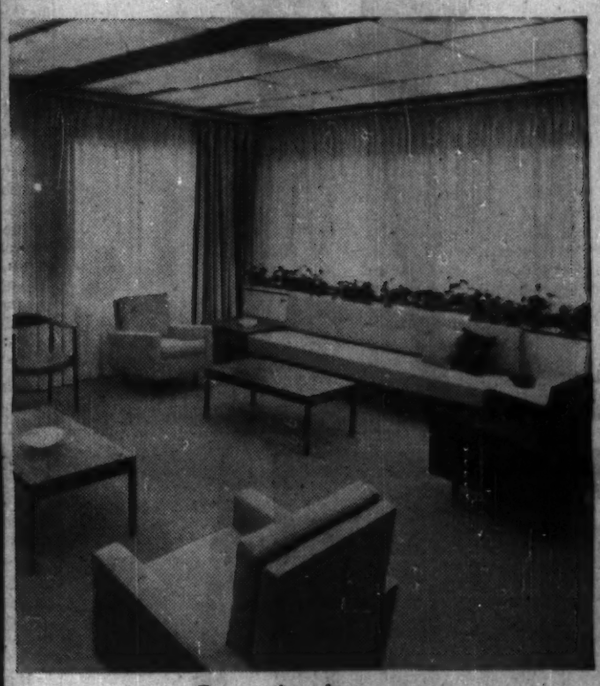
Special attention was taken to the position of the farm bureau because it is thought to generally reflect the feelings of the U. S. Department of Agriculture.

Fact that it accepted and voted for the proposal for the newly strengthened international committee in Washington, is an indication that the U. S. Government may think seriously about the idea.

The IFAP conference said government - against - government trade warfare in farm products is becoming a reality because of uncoordinated national farm programs.

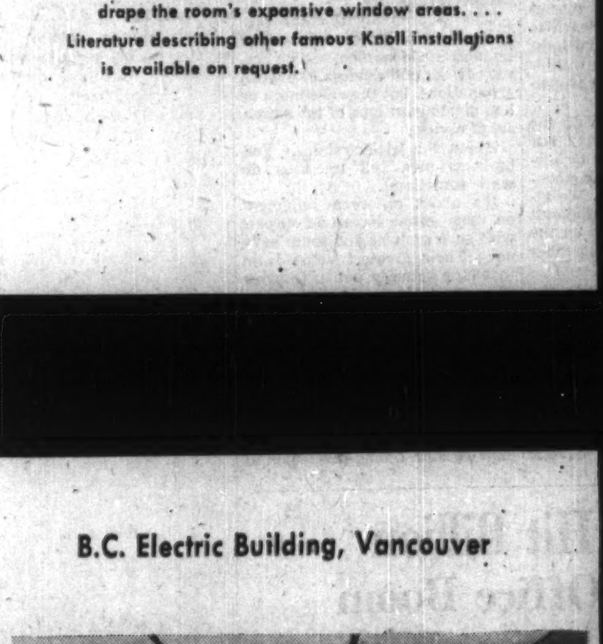
"The more deeply governments have become involved in national agricultural programs, the less they have been inclined to cooperate with each other on a multilateral basis," the policy report of the conference said.

Here are two aspects of the interior design and furnishings of Vancouver's new B.C. Electric Building, as designed and produced by the Knoll Planning Unit. The executive lounge, right, is *en suite* with the executive dining room, below, on the 21st floor. Both are panelled in natural teak and feature white, continuous luminous ceilings. Florence Knoll designed furniture and Hans Wegner chairs rest on the lounge's Knoll Red rug, woven in Puerto Rico. Swedish designer Astrid Sampe designed the pattern for the linen overdrapes. The dining room's walnut tables may be combined for various seating arrangements. The Saarinen chairs are covered in "Charcoal Lana", a woolen weave. They rest on a warm, sand-tone carpet. Alternate panels of yellow and white Belgian linen drape the room's expansive window areas. . . . Literature describing other famous Knoll installations is available on request.



Executive lounge

B.C. Electric Building, Vancouver



Executive dining room

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Aluminum Sees Future In Transport Industry

What is the future of Canada's light metals — aluminum and magnesium?

Aluminum looks to transportation. By 1980, 47% of Canada's aluminum consumption will be used on land, sea and air.

Why? It's cheaper, lighter, strong and wears well.

This is the opinion of R. F. D. Collin, general development and servicing division manager of Aluminum Co. of Canada, expressed in a speech to the Electrochemical Society, Ontario-Quebec sections, recently.

Also, H. G. Warrington, sales and technical service manager, Dominion Magnesium Ltd., Toronto, told how the production of magnesium is dependent on scientific development and application. Here are digests of their speeches.

By R. F. D. COLLIN

Let's look at the record of consumption in Canada. The first smelter was begun in Shawinigan Falls, P.Q. in 1899 and the first production of 140 tons was in 1901.

Here on a logarithmic scale is the record to date: Something over 10% increase per year. For the future we forecast an increase of 7.3% per year through 1980.

This will mean 550,000 tons or 41 lb. per head of the population at that date. Today the per capita consumption is about 13 lb. but this compares with 24 lb. in the U. S.

On what basis can aluminum claim a right to such a generous share in the country's future? There are three main reasons: availability, price and properties.

Aluminum, although not exactly a Canadian metal has become firmly adopted by Canada on account of the smelting industry's huge appetite for electricity and the abundance of water power in this country.

This single reason is a very strong one and it is likely there will be a very large aluminum industry in Canada for a long while to come.

At present Canada consumes only 15% of its aluminum production. The rest is exported all over the world. We anticipate that Canada will grow to consume a much larger share of this output.

The relatively stable price of aluminum in the face of rising prices of other metals with which it competes has long been attractive to industry.

Whatever the technical advantages of using a metal, a change in relative prices always exerts a terrific pressure to experiment with a cheaper alternative.

Head Start

In respect of timing, aluminum is fortunate to have got a head start on magnesium and titanium and it is interesting to speculate how big the aluminum industry would have been if these two metals had got there first.

There also has to be someone with initiative and courage to show the way.

Aluminum continues to raid markets established by other metals. It does so with very little concern for the possible loss of its markets to other metals or non-metals.

Where does aluminum get its markets?

Being a new metal to an already well established industry it gets them at the expense of other metals — from steel, from copper, from lead, and from certain non-metals e.g. wood.

About 50% of copper in North America goes to electrical conductors, much of it possible aluminum business. About 10% of the market for lead goes in the cable sheathing, also possible aluminum business.

There has to be considerable incentive to get the public and industry to accept a change. Therefore, once a material has been accepted it is relatively certain of holding its position.

The end use mix compares fairly well with the figures for the U. S. with the exception that transportation in the U. S. commands a much higher proportion of the total. The right hand column is our forecast of the mix in 1980.

CANADIAN CONSUMPTION OF ALUMINUM

	%	1954 %	1955 %	(1980) %
Building & Construction		31.5	32.1	23.0
Roofing	49			
Architectural	29			
Building supplies	22			
Electrical Industry		25.7	25.9	18.0
Cable	73			
Components	16			
Sheathing	11			
Transportation		15.7	14.0	47.0
Air	43			
Road	40			
Marine	12			
Rail	5			
Household		8.2	8.2	3.5
Cooking Utensils	63			
Furniture	20			
Appliances	17			
Canning & Packaging		5.7	4.0	4.3
Packaging	95			
Seals	5			
Food & Farming		2.5	3.3	1.0
Irrigation	65			
Dairy	3			
Other	32			
Other Industries		10.7	10.5	3.0
		100.0	100.0	100.0

Transportation is going to be the main market. There will be one million passenger cars on the road as compared with 400,000 today and each car will use 200 lb. of aluminum.

There has been a lot of discussion about this figure. It may seem large today but the Cadillac Eldorado Brougham uses 255 lb. of the metal and Chrysler products use between 75 and 100 lb.

All manner of experiments are in hand to prove the possibilities of aluminum both in components of the engine and transmission, and parts of the body.

The flamboyant decoration of the modern automobile is evidently made without much thought for weight.

Cheaper Parts

Detroit seems only interested in the amount of attention that can be attracted per dollar outlay and aluminum is finding favor where the parts can be made more cheaply.

Precision casting, high machining speeds, and durable electrochemical finishes are the most important reasons why we foresee 200 lb. of the metal in every car.

Aluminum is well proven in commercial vehicles. In the U. S. where weight laws are enforced, aluminum vehicles are used extensively and the metal is earning its premium cost in reduced fuel consumption and wear on tires, engines and transmission.

In Canada overweight trucks are freer to pound our highways to destruction. The big van lines know the earning power of light weight vehicles and use aluminum extensively.

The small operator, on the other hand, has usually spent his savings on a more elaborate chassis than he really needs, only to find that he must economize on the body.

The electrical industry will not fare quite so favorably although we expect aluminum to take the place of copper for house wiring, secondary distribution lines, underground cables, and telephone lines.

A large volume of aluminum at present goes into high tension transmission lines by which remote hydro power is brought to the present centres of industry.

We anticipate that there will be a movement of industry toward the source of hydro power and a tendency for thermal and atomic energy power stations to be located at the present centres of industry when they run short of hydro power.

Rural and urban distribution systems are almost all copper today but are cheaper in aluminum.

The electrical industry also uses aluminum in increasing quantities for non-conductor applications such as motor housings, casings and frames of all sizes from small switch gear panels to the structures of large industrial substations.

Building and construction will use more aluminum per head of the population. Agricultural roofing is approaching saturation and it is unlikely that there will be a large increase in the farming population.

Furthermore, there is a chance that aluminized steel may take the place of aluminum in agricultural and industrial roofing sheet.

In commercial buildings and in the home aluminum has won favor for its permanence and its capacity to take attractive finishes.

Proven System

The curtain wall system of sheathing buildings is now proven and is well suited to the Canadian climate.

Many metals have been tried but so far aluminum has been the most successful both from the point of view of appearance and of cost.

Canning and packaging are expected to become very much more important. All technical obstacles to canning food in aluminum have been solved and it is only a matter of the price and availability of tinplate which stands in the way of a substantial part of this market turning to aluminum.

The packaging industry is using greatly increased quantities of aluminum foil. Although foil covers a large area for little weight it is none the less a most important tonnage item.

In today's self-service supermarkets it is used extensively to attract attention. Its principal disadvantage is that it is not transparent but against this it holds the advantage of being the only wrapper in which the contents can be baked.

Technology has played an important part in the broadening markets for aluminum. Fifteen years ago manufacturers often turned down aluminum because it could not be joined.

Now that the obstinate oxide film has been brought under control aluminum is now considered to be an easy metal to join by most of the industrial processes.

The machining of aluminum has suffered from the fact that most general purpose machine tools simply will not cut fast enough to derive full benefit from the machinability of the metal.

Suitable machines are now common and aluminum castings, for instance, command many markets on the grounds that the finished machined part is the cheapest available.

* * *

By H. G. WARRINGTON
Sales and technical manager, Dominion Magnesium Ltd., Toronto

The availability of magnesium exceeds any foreseeable demand, and its production depends on the ingenuity of scientific development of methods of extraction and of the equipment by which the methods can be applied to commercial production.

The U. S. Material Policy Commission (Paley Report) forecast a domestic consumption of 384,000 tons by 1975, which suggests a world production of some one million tons.

Methods of handling magnesium have been of consequence for its use in structural applications, and examples can be quoted of the use of thousands of tons per year in single plants for tractor components and automobile engines.

In two other areas magnesium must grow with metals as a group. The first of these is the field of alloying.

The addition of magnesium to aluminum makes possible the structural alloys on which the aluminum industry is dependent.

Not only for mechanical properties, but in amounts of 3% and over to increase the corrosion resistance so that applications are now possible in environments previously denied.

The addition of magnesium to cast iron gives it the strength and ductility of steel.

The other field is that of reduction metallurgy.

The development in the last few years of a demand for uranium, beryllium, zirconium and titanium in metallic form has caused a corresponding demand for magnesium of the highest purity as a reducing agent.

All uranium will not be used as metal and some titanium is reduced by means of sodium.

Another Use

Another area in which magnesium is tied with the development of another metal is for anodic protection.

Low carbon steels will be used for many years to come for pipe lines, distribution pipes, storage tanks, ship building and bridges.

No matter what surface protection is given, corrosion destroys them.

The only assured prevention is to apply a direct current greater than the local anodic-cathodic currents which cause the rusting.

The most economical source of current in the majority of cases is to use magnesium as the anode and the object to be protected as the cathode in a simulated battery cell in which the corrosive medium is the electrolyte.

It is not possible adequately to discuss one of the four major structural metals without mention of the other three.

The question how does it compete with one of the others is frequently asked.

No metal competes with any other. They have no human attributes. Each fills its own place according to its properties, availability and price (ease of extraction).

The rate of development of the three light metals will thus be dependent on the relative importance of the controlling variable factors.

All are widespread in nature, although suitable sources for existing production processes are more readily accessible for magnesium than for aluminum or titanium.

Canada has sources of titanium but must import bauxite for aluminum at the present time.

Cost Comparison

To compare cost take as a basis a light steel channel, 6 ft. long weighing 13 lb. which costs about $1.20.

The same shape in magnesium alloy will cost $2.16 and weigh 3 lb. In aluminum alloy $2.25 and weight 4½ lb. In titanium, the cost today is $90 and the weight is 7½ lb.

Road transport companies have publicly instructed their purchasing agents to pay up to $1.00 for every lb. saved on a tractor trailer.

One test-drive will prove to you...
nothing *handles, hustles* or *hugs the road*
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Before you've gone your first mile, you'll know Dodge is the nimblest number of them all, with the quickest scataway, the smoothest ride, the safest stop-power in the low-price field. Give Torque-Flite drive, Torsion-Aire Ride and Total-Contact brakes credit for that!

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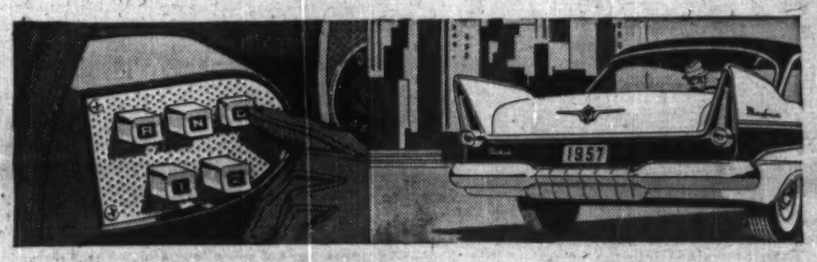

You'd never guess anyone could put such a low price on such a high-spirited car. But DODGE does!

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Grace Line Opens Toronto Office

Grace Line, which operates extensive freight and passenger routes between North America, the Caribbean, Central and South America, has opened its first Canadian office at Toronto. The office will be headed by J. Edouard Samson as District Manager.

Plans are being made to extend service to the Great Lakes prior to the opening of the Seaway.

Application was recently made to the U. S. Federal Maritime Board to operate freight service from Great Lakes and St. Lawrence River ports to the Caribbean.

If the decision, expected later this month, is favorable, 2,885-ton ships will be chartered to begin regular sailings shortly. At a later date, a 9,000-ton vessel will be converted to carry freight and passengers to the Caribbean and South America.

Grace Line operates 28 ships, including 11 passenger vessels and 17 freighters. Cruise ships, traveling to various southern ports, sail weekly from North America.

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